



# Roadmap to 100

*Report from year one of planning for 100% renewable, zero-emission energy*

(September 5, 2018)



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## Key Terms

**The Bay:** An initiative to create consensus among community and neighborhood leaders about what the future of 53 acres on the Sarasota Bayfront should be. Over 55 groups have joined the effort to support the creation of a long-term master plan that will establish a cultural and economic legacy for the region while ensuring open, public access to the Bayfront.

**Biodigestor:** A device which uses the digestion of organic matter by bacteria while producing burnable biogass and a nutrient-rich slurry.

**Economic Development Corporation:** A public/private partnership focused on growing and diversifying the economy of Sarasota County while enhancing its unique natural and cultural environment.

**Gasohol:** A mixure of gasoline and ethyl alchold used as fuel in internal combustion engines.

**Green Economy:** An economy that aims to reduce environmental risks and ecological scarcities, through sustainable development.

**Green Business Partnership:** A Sarasota County program which certifies local businesses that operate in an environmentally friendly manner through on-site verification of reduction, reuse and conservation practices.

**Florida's Public Service Commission:** Mission is to ensure consumers receive essential services — electric, natural gas, telephone, water, and wastewater — in a safe, reasonable, and reliable manner. The PSC has regulatory authority over utilities in three key areas: rate base/economic regulation; competitive market oversight; and monitoring of safety, reliability, and service.

**Solar Co-op:** A group of homeowners in a defined geographic area who use their combined purchasing power to receive the most competitively priced solar installation.

**Solar Power Purchase Agreement:** A financial agreement where a developer arranges for the design, permitting, financing and installation of a solar energy system on a customer's property at little to no cost. The developer then sells the power generated to the host customer at fixed rate that is typically lower than the local utility's retail rate.

**Natural Gas:** A flammable gas consisting of methane and other hydrocarbons, occurring naturally underground. A fossil fuel used as source of energy for heating, cooking and electricity generation.

#### Acronyms

- Community Redevelopment Area (CRA)
- Economic Development Corporation (EDC)
- Energy Investment District (EID)
- Florida Department of Revenue (FDR)
- Florida Power and Light (FPL)
- Fiscal year (FY)
- Leadership in Energy and Environmental Design (LEED)
- Memorandum of understanding (MOU)
- Property-Assessed Clean Energy (PACE)
- Photovoltaic (PV)
- Sarasota Bayfront Planning Organization (SBPO)
- Solar Energy Loan Fund (SELF)

## Introduction and Background

In June 2017, the Sarasota City Commission passed a resolution establishing a community-wide target of using 100% renewable, zero-emission<sup>1</sup> energy by 2045 and a city operation target of using 100% renewable energy by 2030. Community members presented at a City Commission meeting to request Commission support for this resolution as part of the Sierra Club's Ready for 100 initiative. The resolution passed unanimously and in December 2017, Sustainability staff began facilitating community input sessions to inform and prioritize strategies. Additionally, a community-led initiative formed and has been implementing education and projects to support the Resolution's guiding principles.

The purpose of this report is to summarize the city-led analysis and planning to-date and to create a year-long implementation plan to move towards the 100% renewable, zero-emission energy goal. *This is a long term, iterative planning and implementation process – therefore this report should be viewed as a “living document” that will be updated as the latest information becomes available.*

Although the target is technically feasible, community leaders acknowledged during the planning process that all the strategies to reach the target in 2045 are still unknown based on state legislation, current technologies, and the long-term planning horizon. For example, if state policies changed during the next 27 years and required a renewable portfolio standard or allowed power purchase agreements (or if the cost of solar batteries were to significantly reduce) than the path to 100 % would significantly change. For this reason, it is important to maintain bi-annual community meetings and adapt this plan to changing conditions and current information. Additionally, there are several community sectors involved (each with a key role) in helping transition to 100% renewable energy and to inform how quickly and costly the shift will be. According to Florida Power and Light's (FPL) 10-year site plan, the electric grid that feeds the City of Sarasota is projected to consist of 7.4% renewable energy by 2027. If these projections are coupled with efforts to increase the affordability and access to renewable energy for homeowner's and businesses to install it on their property, the community-wide percentage of renewable energy can increase dramatically. And lastly, when city government reaches its target of powering 50% of its operations with renewable energy by 2024, then all these sectors combined will result in significant strides in the next 10 years.

The Sustainability Program is proud of the community-led efforts and partnerships that are helping make this initiative successful. The planning process and strategies in this document have been informed through in-depth public engagement. We recognize the need to couple this planning effort with additional technical assessments to better inform future decisions yet lack the financial resources to dedicate funding this fiscal year. Given that Sarasota has talented human capital, we welcome any volunteer support to assist with the needed technical analysis. Specifically, assistance to help better understand how far each strategy will take us towards the renewable energy goal, a solar rooftop potential analysis (GIS/LIDAR based), and/or research on the benefits and challenges associated with

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<sup>1</sup> This document uses renewable energy and renewable, zero emission energy interchangeably. When referring to the terms renewable energy or renewable, zero emission energy as associated with the City's Ready for 100 commitment – the definition includes energy derived from solar, wind power sited in ecologically responsible ways, existing and low-impact hydroelectric, geothermal, and ocean/wave technology sources (in accordance with Resolution NO. 17R-2648).

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local or state-wide renewable energy credits. If you are a technical expert in any of these specialties and willing to volunteer time, please contact the City of Sarasota's Sustainability program.

### The Resolution & Guiding Principles

The "Ready for 100" resolution aims to:

- Achieve a community-wide target of 100 % renewable, zero emission energy sources by 2045
- Achieve a municipal-operations target of 100 % renewable, zero emission energy sources by 2030 and 50% by 2024
- Direct the Sustainability program to work with community stakeholders to devise implementation strategies and integrate into the "Climate Change Vulnerability Assessment and Adaptation" planning efforts
- Direct Sustainability program to use the initiative to build inclusive community leadership and policy engagement, promote equity in energy and resource costs, generate sustainable economic development, and provide regional leadership to address equity in climate & energy
- Report on the progress to commission at least every two years

The complete resolution language can be found in Appendix A.

### Planning Process

The Ready for 100 resolution was signed on June 19, 2017 and the city-led facilitation and community planning process began in December. The planning meetings and topics covered are shown in Figure 1.

Figure 1: Ready for 100 Planning Processes



#### Meeting 1: Kick-Off & Identifying Strategies- December 20, 2017

Presentation: A presentation was given by City and County staff that covered Ready for 100 resolution language, guiding principles, existing data on community-wide renewable energy, relevant statewide

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policies, Ordinance 10-4917 granting Florida Power and Light (FPL) an electric franchise, and the Renewable Energy, Energy Efficiency, and Energy Sustainability Agreement with FPL.

**Community Input:** After the presentation, there was an interactive exercise where attendees were asked to write on large papers throughout the room their ideas to reach 100% renewable, zero-emission energy. Specifically, attendees were asked “What strategies could we, as a community and city, implement to reach 100 percent renewable, zero-emission energy?” and “Is it legal/allowed today?” If it was not legal/allowed but attendees “wished it were,” they were directed to write it on a “Wish List” poster that was in the room.

Strategy ideas were collected in five distinct groups:

- Utility Focused Strategies (ways residents and the city can collaborate with Florida Power and Light on renewable, zero emission energy and energy efficiency)
- Community Focused Strategies (ways to support residents' and business' ability to generate their own renewable, zero-emission energy or engage in energy efficiency upgrades)
- Transportation Focused Strategies (ways to transform gas and diesel vehicles to renewable, zero-emission sources and plan for walkability, bikeability)
- Municipal Operations Strategies (ways to make the city more energy efficient and meet its demand for electricity with renewable, zero-emission energy)
- Wish List (strategies or policies that are not legal/allowed today but if policy were to change, could be done in the future)

### Meeting 2: Evaluating Strategies - February 21, 2018

**Presentation:** A presentation was given to review the Ready for 100 resolution language, guiding principles, four goals, baseline data, updates on municipal strategies, and plan for integrating transportation focused strategies into other existing efforts.

**Community Input:** This portion of the meeting focused on evaluating the community-oriented strategies to inform prioritization. Each strategy idea that was listed last meeting was explained further by city staff or a community member, to encourage community leadership. The strategy ideas evaluated during this second meeting are summarized below.

Property Assessed Clean Energy (PACE) program
Solar Financing for Nonprofit
Solar Energy Loan Fund
Solar Co-Op
A Ready for 100 "Opt-In" Program for Local Businesses and Large Institutions
Newtown Energy Investment District
Green Jobs Training Program
Renewable Energy in Marian Anderson and The Bay Sites
Lower Solar Permitting Fees

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A Stronger Green Building Code
Local Financial Incentives for Solar Installations
More Community Education on Energy Efficiency and Renewable Energy
Summer Camp Where Kids Create Artistic Renewable Energy
Install a Land Art Generator
Educate on Benefits of and Incentivize Shading Parking Lots with Solar Canopies

Table 1: Community Focused Implementation Strategies

Attendees were given voting dots to answer five questions for each of the community strategies:

- How well would this strategy reduce electricity use throughout our community? [options included: not reduce, moderately reduce, greatly reduce electricity use, and I don't know]
- How well would this strategy transition our local electricity from fossil fuels to renewable sources? [options included: not impact, moderately impact, or potential to greatly impact the transition to of local electricity from fossil fuels to renewable sources]
- Does this strategy have the potential to create a significant amount of local jobs? [options included: not create, moderately create (10-30), or potential to create significant amount of local jobs (30+)]
- Does this strategy specifically assist community members who are most in need or who have historically been under-served (this includes the elderly, people of color, low income, new Americans, the homeless, and people with disabilities)? [options included: does not specifically focus on community members most in need, or does have a specific focus on community members in need, or it could be implemented with a social equity focus in the following ways (write-in)]
- Does this strategy have the following co-benefits? [Flood prevention, greenspace, shading, habitat creation, air quality, improve health conditions, climate adaptation, highly visible, youth education, near-term "win," other].

### Meeting 3: Review Prioritized Strategies & Discuss Implementation – April 18, 2018

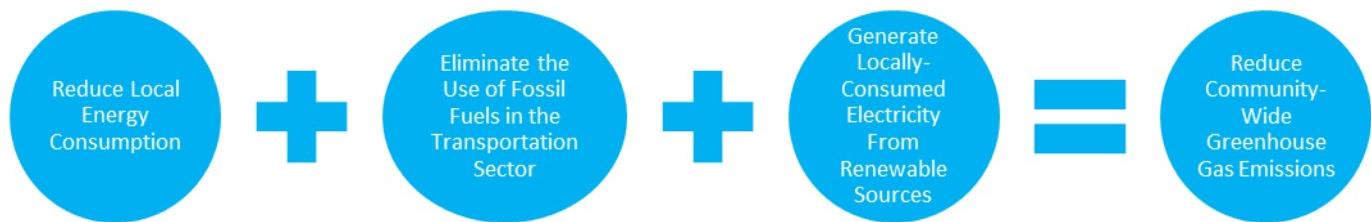
Presentation: A presentation was given by City staff to review the prioritized strategies from meeting 2, the Ready for 100 resolution language, guiding principles, existing data on community-wide renewable energy, municipal and transportation updates, FPL's renewable energy and energy efficiency efforts, and to propose an ongoing collaborative & reporting structure.

Community Input: Attendees divided into small groups and completed a worksheet which listed all the strategies and asked if there was a community group already working on this (and if yes, identified who) and if attendees thought the City should take a leadership role, supporting role, or not be involved at all. This purpose of this information was to identify clear leadership and determine roles within the implementation plan.

Meeting 4: Review Report, Collect Feedback & Celebrate Completion of Initial Planning Phase- June 20, 2018

The purpose of this meeting was to solicit meaningful feedback on the draft report and celebrate completion of the 6-month planning process. Staff presented the sections of the report and divided the room into six groups. Each group completed a “SWAD” analysis by identifying the strengths of the report, the weaknesses, items to add, and items to delete. The small-group feedback was shared with the larger audience and further reviewed by staff and comments integrated into this final draft report. Community members then shared refreshments to celebrate reaching the final report milestone.

Figure 2: Ready for 100 Goals



Goals and Data

The “Ready for 100” initiative has four distinct goals:

1. Reduce Local Energy Consumption
2. Eliminate the Use of Fossil Fuels in the Transportation Sector
3. Generate all Locally-Consumed Electricity from Renewable, Zero Emission Sources
4. Reduce Municipal Operation’s Greenhouse Gas Emissions 50% by 2024 and 100% by 2030, and Community-Wide Greenhouse Gas Emissions by 100% by 2045.

Progress towards these goals will be monitored and reported on each year with greenhouse gas emissions inventoried every three years. *This report is recommending expert assistance to further determine science-based, short-term targets for these goals and to further assess technical feasibility.* Goals and methodologies can be adjusted based on this technical assistance. For example, staff are researching grant and free technical assistance programs through the National Renewable Energy Laboratory and others to inform setting realistic and feasible mid-term targets and track each goal according to best practice methodology. Currently, the City has baseline data for each of the four goals from 2015.

Goal 1: Reduce Energy Consumption

Energy efficiency and conservation must remain a priority within the Ready for 100 initiative. Projects to encourage the reduction of energy consumption are cost effective, can result in local job creation, and help make all the other goals attainable more quickly. In 2015, the City of Sarasota electricity use was 883,299,372 kWh among 33,198 accounts. The accounts fall under three main categories: residential (83%), commercial (16.6%), and industrial (0.3%). In 2017, the City of Sarasota electricity use was 874,490,230 kWh. This data was created from reviewing monthly municipal tax payments that are

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submitted by FPL to the City's Finance Department. These payments show FPL and City revenue based on community-wide kWh. In the City of Sarasota for CY 2015, 92% of combined commercial and industrial energy greenhouse gas emissions were from purchased grid electricity (FPL) while 8% were from natural gas use (TECO). For residential emissions, 96% came from purchased grid electricity while 4% were from natural gas use (TECO). This goal does not have a mid-range target. City staff recommends receiving outside technical assistance in identifying feasible goals related to community-wide energy efficiency and conservation. This technical assistance could be in the form of grant, intern, or paid consultant assistance. See Figure 4 for the sources of our local electricity.

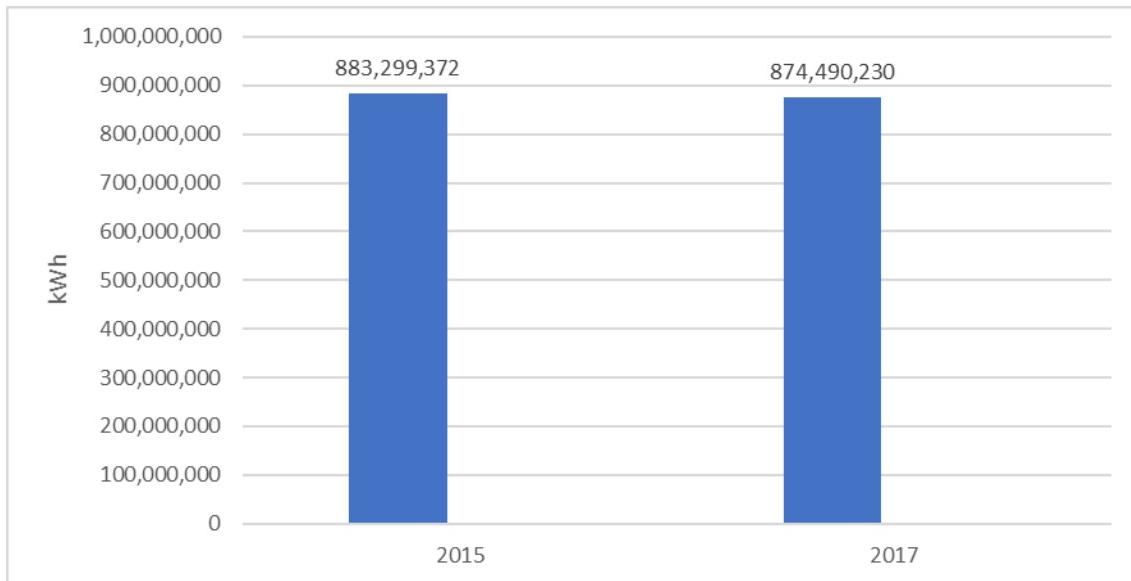


Figure 3: City-wide Electricity Consumption 2015 & 2017

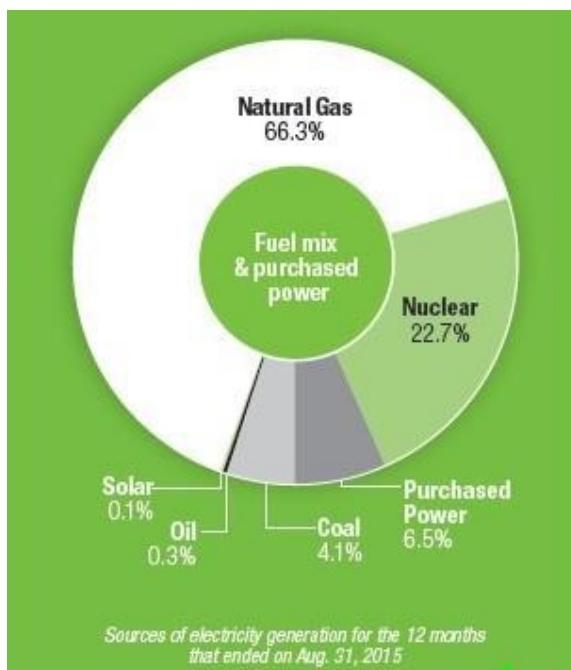


Figure 4: Sources of FPL Electricity Generation 2015

Goal 2: Eliminate the use of Fossil Fuels (and other GHG-emitting sources) in the Transportation Sector

To establish a 2015 baseline of the fossil fuel used in the transportation sector, data was used for gasoline, gasohol and diesel fuel sold inside City of Sarasota city limits.

This data was obtained by using fuel tax information from the Florida Department of Revenue. Each gallon of fuel that is sold by licensed terminal suppliers and wholesalers is taxed and recorded by the Florida Department of Revenue (FDR). This data was provided by FDR to the City for this analysis. The dataset does not include gasoline resellers but is a good starting baseline for the number of gallons sold within the City per calendar year. This baseline may be updated and integrated based on the methodologies and data used within the Transportation Master Planning process.

This goal does not have an annual or mid-range target. City staff recommends receiving technical assistance through the Transportation Master Planning process to set appropriate and feasible short and mid-range targets.

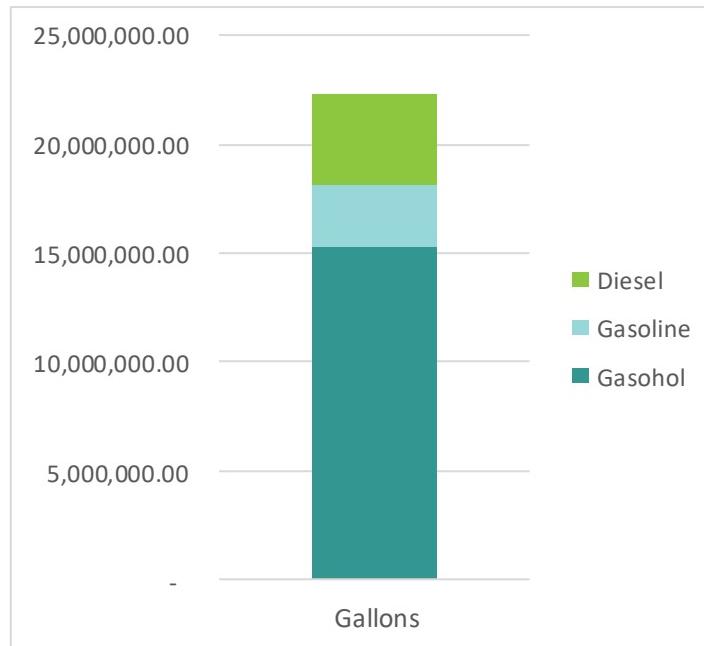


Figure 5: Gasoline, Gasohol and Diesel Sold in City Limits - 2015

Goal 3: Generate all locally consumed electricity from renewable, zero-emission sources of energy

Sustainability staff estimated that 0.5% of the City's local electricity supply came from renewable sources in 2015. This estimate includes 0.2% of the grid electricity provided to all City of Sarasota accounts through FPL recognized as coming from renewable, zero emissions sources plus a local estimated from onsite systems (such as roof top solar). Exact data on the number of onsite systems at the City level was not available. The estimate for local onsite systems was based on actual data for Sarasota County and applied to the City, resulting in an estimated 0.3% of City accounts as having an onsite solar system. Methodology applied the average installation size and percentage for Sarasota County to the number of city accounts. The exact methodology for estimating onsite systems is outlined in Appendix B and can be replicated each year unless more precise data becomes available. Based on FPL's renewable energy investments, it is estimated that by the end of 2018, their grid electricity will contain 1.6% renewable, zero emission sources. This, coupled with onsite systems makes the 2018 estimate 1.9%.

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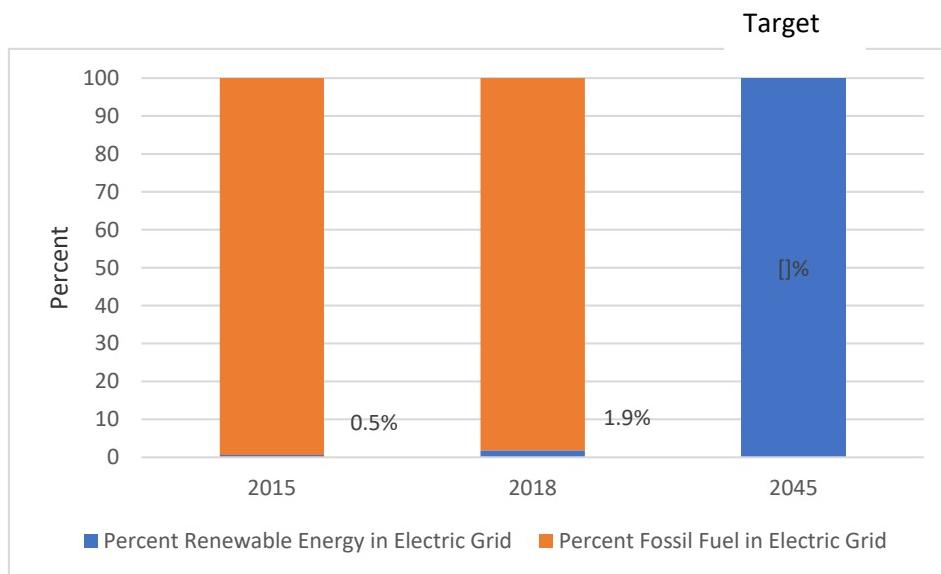


Figure 6: Percent Renewable Energy in Local Electricity Supply 2015, 2018, and 2045

### Goal 4: Reduce Community-Wide GHG Emissions by 35% by 2025 and 100% by 2045 compared to a 2003 baseline

Focusing Ready for 100 implementation projects on achieving goals 1, 2 and 3 will result in the outcome of reduced greenhouse gas emissions and reaching goal 4. Previously, the City of Sarasota adopted a goal in the Comprehensive Plan of reducing greenhouse gas emissions by 35% by 2025 from a 2003 baseline. The City of Sarasota has three complete community-wide greenhouse gas inventories for 2003, 2007 and 2015. The full methodology can be found in the official report at [sarasotafl.gov/sustainability](http://sarasotafl.gov/sustainability). Overall results per sector are provided in metric tons carbon dioxide equivalents, as recommended in the US Community Protocol for Accounting and Reporting Greenhouse Gas Emissions, a national standardized methodology. Another greenhouse gas inventory is planned for calendar year 2018 emissions and will be conducted every three years thereafter.

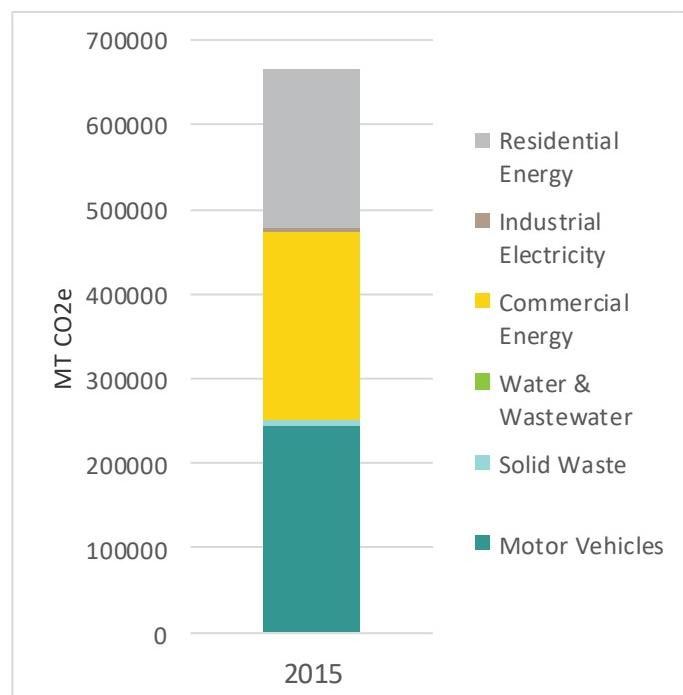


Figure 7: Community-Wide Greenhouse Gas Emissions

### Future Modeling

There are several community sectors involved (each with an important role) in helping transition to 100% renewable energy and to inform how quickly and costly the shift will be. According to Florida

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Power and Light's (FPL) 10-year site plan, the electric grid that feeds the City of Sarasota is projected to consist of 7.4% renewable energy by 2027. The table below was recreated from the 10-year site plan.<sup>2</sup>

	<b>Solar<sup>3</sup></b>	<b>Nuclear</b>	<b>Coal</b>	<b>Natural Gas</b>	<b>Other</b>
<b>2016</b>	0.2	23.1	3.4	70.8	0.5
<b>2017</b>	0.5	23.2	3.4	71.8	0.5
<b>2018</b>	1.6	25.5	1.9	69.5	1.4
<b>2019</b>	2.1	25.3	1.7	69.4	1.4
<b>2020</b>	3.2	25.1	1.4	68.7	1.5
<b>2021</b>	4.3	25.0	1.4	67.6	1.5
<b>2022</b>	4.9	25.0	1.4	67.1	1.6
<b>2023</b>	5.4	24.9	1.5	66.5	1.6
<b>2024</b>	6.0	24.8	1.5	66.1	1.7
<b>2025</b>	6.5	24.6	1.5	65.7	1.7
<b>2026</b>	7.0	24.4	1.5	65.3	1.7
<b>2027</b>	7.4	24.2	1.6	64.9	1.8

Table 2: FPL Grid Electricity Sources by Percent 2016 - 2027

If FPL grid electricity projections are coupled with aggressive efforts to increase the affordability and access to energy efficiency and renewable energy for homeowners and businesses and local government, the local percentage of energy coming from renewable sources can increase dramatically. **The table below shows one scenario for annual targets that would result in 12.65% of total local electricity coming from renewable sources within the City of Sarasota in 2027. This table is only one way to visually relay what it would look like if FPL, City of Sarasota Operations, and local businesses met these potential annual targets.** The City of Sarasota's municipal operations make up 2.5% of the community (city-wide) electricity demand. Given this, the City's municipal operations reaching its 50% target by 2024 would result in increasing the overall community power coming from renewable sources by 1.25%. When the City reaches its Ready for 100 targets of powering 100% of its operational electricity with renewable energy by 2030, this will result in increasing the overall community power coming from renewable sources by 2.5%. These percentages and scenarios represented in Table 3 can be updated each year and refined based on further analysis, technical assistance and can be extrapolated out to 2045.

<sup>2</sup> <https://www.fpl.com/company/pdf/10-year-site-plan.pdf>

<sup>3</sup> 10-year site plan schedule 6.2- 1/ Source: A Schedules and Actual Data for Next Generation Solar Centers Report  
2/ The projected figures are based on estimated energy purchases from SJRPP. 3/ Represents output from FPL's PV and solar thermal facilities.

4/ Represents a forecast of energy expected to be purchased from Qualifying Facilities, etc., Independent Power Producers, net of Economy and other Power Sales.

	<b>% of Local Electricity Coming from Renewable Sources from FPL Grid</b>	<b>% of Local Electricity Coming from Renewable Sources from Residents and Businesses (for example, from Rooftop solar)</b>	<b>% of Local Electricity Coming from Renewable Sources within Municipal Operations</b>	<b>Total percentage of Local Electricity Coming from Renewable Sources</b>
<b>2018</b>	1.6	0.2	0	<b>1.8</b>
<b>2019</b>	2.1	0.3	0	<b>2.4</b>
<b>2020</b>	3.2	0.4	0.5	<b>4.1</b>
<b>2021</b>	4.3	0.5	0.75	<b>5.55</b>
<b>2022</b>	4.9	0.75	1	<b>6.65</b>
<b>2023</b>	5.4	1	1	<b>7.4</b>
<b>2024</b>	6	1.25	1.25	<b>8.5</b>
<b>2025</b>	6.5	1.5	1.25	<b>9.25</b>
<b>2026</b>	7	3	1.25	<b>11.25</b>
<b>2027</b>	7.4	4	1.25	<b>12.65</b>

Table 3: Ten Year Projection for Percentage of Local Electricity Coming from Renewable, Zero-Emission Sources  
(an estimated scenario based on current plans and targets)

## Strategies

This section presents community, utility, municipal operations, and transportation focused strategies to support a transition to 100 % renewable energy, prioritized through intensive community input over a 6-month period. Community focused strategies prioritize energy efficiency, social equity and local economic development while supporting public leadership and policy engagement.

### Community Focused Strategies

This section summarizes the public input and recommendation for strategies that support residents and businesses ability to generate their own renewable energy or implement energy efficiency projects. The first 10 strategies are listed in order of prioritization based on community input. The last two strategies were developed after the community meetings yet were included due to potential impact and relevancy.

#### **Strategy: Integrate energy and green job training within Marian Anderson Place**

Rank in prioritization: #1 (Green jobs training program was #8)

**Background & Status:** Marian Anderson Place is a 13-acre vacant property in North Sarasota on a path to redevelopment. The site underwent years of environmental remediation due to contamination resulting from historical dumping on the land. In March 2017 the City Commission approved an Invitation to Negotiate (ITN) for the redevelopment of Marian Anderson Place to bring to life the community's desire for vocational training space, high quality commercial/retail, and walking trails with public gathering

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spaces. In September 2017, a City selection committee, coordinated through the Economic Development Department, chose to move forward with negotiations with UrbanAmerica, LLC.

UrbanAmerica, LLC proposed a phased approach toward the possible purchase of the property to understand the project's viability and assess financial risks. Phase I would include a 6-month feasibility study and market analysis to understand site specific conditions. UrbanAmerica, LLC began this 6-month Phase I assessment in June 2018. Phase II would include negotiations and the creation of a Purchase Agreement. The sale price of the land for Phase II would be negotiated after taking into consideration the economic feasibility of the project including any site constraints found in Phase I.



Site of Marian Anderson Place

The existing vision and criteria for the site includes promoting economic development and job creation through:

- High-tech industry, light production and assembly uses
- Quality Residential / Office / Mixed Use along the Martin Luther King Jr. Way frontage
- Vocational technical training center that promotes a local entrepreneurial hub
- Emphasizing local hiring
- Reflecting green energy, energy efficiency and transit-oriented design
- Providing the highest and best training for the future

**Strategy Description:** The public input received within the Ready for 100 process identified integrating green jobs training within the vocational education that is being planned for the site, as well as integrating green building design and renewable, zero-emission energy, as one of the most important strategies to pursue (tied as #1). This strategy scored high for its economic development potential, social equity focus, and multiple potential co-benefits.

**City's Role:** Ensure that the community's desires are reflected through a Phase II negotiated project that supports local job creation and vocational training for living-wage jobs that provides the highest and best training for the future. Emphasis should be on training that leads to gainful regional employment, particularly with employees that are knowledgeable about energy efficiency and renewable energy concepts. Identify ways to support or incentivize green building design and renewable energy in the Phase II development itself. The City economic development and sustainability staff could begin identifying partners, including employers in the construction, renewable and zero-emission energy, remodeling, HVAC or related fields that agree to hire from a job training program. In the long-term the City could support curriculum development to integrate sustainability and green building modules within existing vocational education to occur onsite.

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Community's role in implementation: Private sector employers and existing vocational training partners are needed to coordinate and lead a successful program. Residents and citizens can engage directly with UrbanAmerica and the Economic Development office at public meetings for each phase of the project.

### **Strategy: Integrate renewable, zero-emission energy generation within The Bay site**

Rank in prioritization: #1 (tie)

Background: The Bay site consists of 53 acres of Municipally-owned land with existing cultural institutions and is currently undergoing a master plan for redevelopment. In 2013, Bayfront 20:20 was formed with a goal to create consensus among community and neighborhood leaders about the what the future of the Bayfront should be. A vision statement was created to “support the creation of a long-term master plan for the Sarasota Bayfront area that will establish a cultural and economic legacy for the region while ensuring open, public access to the Bayfront.” Community groups began to sign on to this unified vision and in 2016, the Sarasota Bayfront Planning Organization (SBPO) was formed as a 501(c)(3) comprised of a nine-member citizen volunteer board. The SBPO’s main task was to search for a



Sarasota Bayfront

firm to create a master plan that was fiscally feasible and environmentally sustainable. In 2017, a firm named Sasaki was hired to begin the public outreach and master planning process. As of this report’s publication, Sasaki had created design concepts, received over 1,000 surveys, and in September a Master plan was unanimously approved by City Commission for the The Bay.

Strategy Description: The public input received within the Ready for 100 process identified green building design,

renewable energy, and district-wide heating and cooling as one of the most important strategies to pursue. This is in addition to the already-identified need for climate adaptation and living shoreline projects within the site. This strategy scored high for its economic development potential, social equity focus, and multiple potential co-benefits including visibility, flood adaptation, etc.

City's role in Implementation: Given that this project is on public, city-owned land the City has tremendous opportunity to support, incentivize, and require green building design and renewable energy as the specific buildings move forward with development. Sustainability staff should ensure the Sarasota City Commission and City Manager (a member of the SBPO board) are aware of this strategy’s high-rating from the community.

Community's role in implementation: Organized community stakeholder groups can formally partner in the Bayfront planning process, promote awareness on the project and help build support for the redevelopment. Also, community groups can attend and provide comments at all public meetings (meeting times are found at [www.thebaysarasota.org](http://www.thebaysarasota.org)).

### **Strategy: Implement a stronger Green Building Code and local financial incentives**

Rank in prioritization: #2 (Lower solar permitting fees was #7, local financial incentives was #10)

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Background: Currently the City of Sarasota has no specific incentives or ordinances to encourage new developments to become third party / green building certified however, recently the City did implement same day approval for permits for solar installations that met specific criteria. The Environmental Protection and Coastal Islands Chapter of the Comprehensive plan does identify action strategy 6.5- “to encourage reduction of greenhouse gas emissions and the construction of more efficient buildings, the City shall develop and implement incentives for certifiable development proposals. Such incentives may include a formal expedited review process or a fee reduction schedule.” Additionally, action strategy 6.3 states – “To achieve more sustainable building practices, the City shall use sustainable building measures for new buildings and major renovation projects for City facilities as outlined in a LEED Certification or Alternative Compliance Pathway for Incentives. For urban expansion and infill development, the City shall use measures as outlined in “LEED for Neighborhood Development” or Alternative Compliance Pathway for Incentives to help create more sustainable and well-connected neighborhoods.”

Strategy Description: Upon City Commission direction and based on the public input received within the Ready for 100 process combined with the strategies approved in the Comprehensive plan, the sustainability program recommends conducting a comprehensive public outreach and hearing processes to inform a new green building ordinance which shall include an analysis of various financial incentives and models. Alternatives to be assessed include but are not limited to: requiring developments over a certain size to be a certified green building or pay a fee, reducing fees for permitting solar installations, expediting permitting process, incentivizing canopy structures, assisting with financing for renewable energy installations equal to the solar tax credit rebate, etc.

City's role in implementation: Sustainability staff has begun researching and documenting ways jurisdictions have implemented green building codes in preparation for bringing options to the commission and community. Upon commission direction and in close collaboration with the building and planning departments, the sustainability program could conduct targeted input sessions to gather community input from diverse stakeholders (including development community) on the content and approach for a new green building ordinance.

Community's role in implementation: Attend input sessions and assist in building support for a new green building ordinance.

**Strategy: More community education on energy efficiency, renewable and zero-emission energy, and benefits of shading parking lots with solar canopies**

Rank in prioritization: #3 (parking lot shading with solar canopies #5)

Background: There are existing programs that offer education on energy efficiency and renewable energy that the Ready for 100 community input felt could be better coordinated or amplified. Existing



UF/IFAS Sarasota County Extension Office at Twin Lakes Park

educational initiatives include:

- Sarasota County / UF IFAS Extension: Offers relevant community classes and educational resources related to energy efficiency or solar energy, including:
  - Do it Yourself Energy and Water Audit Kits: Available for self-checkout throughout Sarasota County Libraries, the kit is designed for homeowners who would like to go much further into detail in analyzing their home's energy and water use and quantifying savings; provides a step-by-step guide, as well as the technical equipment necessary to determine specific energy and water use profiles and solutions for the home.
  - Energy Upgrade Classes: Teaches cost-saving strategies for residents, considerations for selecting contractors, do-it-yourself opportunities, and possible incentive. Attendees receive a free "Do It Yourself Energy Saving Kit" which includes compact fluorescent light bulbs, faucet aerators, a smart power strip, rope caulk, and outlet insulating gaskets.
  - Solar in the Sunshine State Classes: Covers the Basics of Solar Energy for Florida Homeowners, this class relays the basic technology behind solar, calculating the return on investment, policies affecting solar adoption, and incentives to help pay for it.
  - Green Buildings in our Community Classes: Spreads awareness of Sarasota County's approach to green building and what public buildings are certified by the US Green Building Council's LEED program; teaches about different certification programs, options, and how you can earn points towards certification through credit categories.
- FPL: Offers free energy audits to all customers; residents within the City of Sarasota that receive an in-person energy assessment will also receive a free energy saving kit that includes items like LED light bulbs, caulk, etc.
- Sarasota County School Board: Existing educators throughout the Sarasota County school district teach on various concepts related to environmental sustainability and energy use.

**Strategy Description:** The public input received through the Ready for 100 initiative recommended more educational opportunities on the benefits of energy efficiency and renewable, zero-emission energy. Community feedback indicated a lack of information on the current regional offerings so more awareness on existing programs and/or increasing the amount or methods of education is needed. Ideas included an ongoing class at Suncoast Technical Institute and/or within the Ringling Lifelong Learner Series.

**City's role in implementation:** The City of Sarasota can play a supporting role in existing initiatives by assisting to spread the word, linking via city website and social media, including information at educational events, and other in-kind collaboration.

**Community's role in implementation:** A more formal coordination and leadership amongst these educational entities could improve participation and awareness and assist in identifying gaps.

### **Strategy: Implement regular solar co-ops**

Rank in prioritization: #4

Background: The Sarasota region has hosted two solar co-op programs through Solar United Neighbors and its partners. Solar co-ops work through leveraging a group bulk-purchasing power to provide discounts on PV pricing. Co-op participants review bids from installers and choose through a competitive bidding process. The first solar co-op in our region resulted in 71 installations and 650 kW installed, making it the 2<sup>nd</sup> most successful in the state of Florida. The second solar co-op launched in May 2018.



Launch of first Solar Co-Op celebrated at Florida House Institute

Strategy Description: Host regular solar co-ops in the region to increase solar installations and/or fund a position that works on solar co-ops for the region.

City's role in implementation: The City of Sarasota can play a supporting role in existing initiatives by assisting with marketing of the program, offering event space, or considering financially supporting the co-op in the future.

Community's role in implementation: The non-profit Solar United Neighborhoods and past partners such as the League of Women Voters, Barancik Foundation, Gulf Coast Community Foundation, or Suncoast Climate Justice Coalition, can be primary stakeholders in moving this strategy forward.

### **Strategy: Implementing a Property Assessed Clean Energy (PACE) Program**

Rank in prioritization: #6

Background: The Property Assessed Clean Energy (PACE) model is an innovative mechanism for financing energy efficiency, renewable and zero-emission energy, and hurricane hardening improvements on private property. PACE programs can exist for both residential and commercial properties and involve allowing a property owner to finance the up-front cost of energy or other eligible improvements on a property and then pay the costs back over time through a voluntary assessment levied on their property tax bill. In October 2017, Sarasota County Commission adopted an ordinance setting a framework for a PACE program, the first step in establishing a local program. The ordinance was structured so that local governments, like the City of Sarasota, could opt-in and offer a PACE program under the same rules within their jurisdictions. Currently, Sarasota County is negotiating agreements with PACE contractors and will then begin offering workshops to the community to explain PACE and other financing opportunities for community members to consider when wanting to make energy or hurricane-hardening upgrades. In certain situations, PACE may not be the most advantageous financing model for a property owner to pursue, therefore an important aspect to implementing this program is community education on the various financing options.

Strategy Description: The public input received through the Ready for 100 initiative supported the City of Sarasota opting in to the County's PACE program and offering it as a financing option for local property owners.

## Roadmap to 100 – Year One Report

**City's Role:** After Sarasota County has completed the agreements with the PACE providers, sustainability staff will schedule a City Commission meeting to discuss opting in and to answer questions.

**Community's Role:** Attend educational sessions and help spread the word about financing options available throughout our community.

### **Strategy: Newtown Energy Investment District (EID) / Newtown Energy Plan & Green Jobs Training Program**

Rank in prioritization: #9

**Background:** An energy investment district is a geographic area eligible for financing and other support that enable residents to plan and implement community-scale, energy efficiency and renewable energy projects. Energy Investment Districts (EIDs) can enable communities, particularly communities of color, to develop local renewable energy generation and energy efficiency programs that are accountable to the community and produce healthier neighborhoods, reduce energy costs, create good jobs, build the local economy, and combat climate change. Many energy efficiency and renewable energy efforts are supported by federal and state tax credits and grants that typically benefit higher-income homeowners and exclude tenants and lower-income households. Inclusive policies focused on geographic area aim to address multiple challenges in these communities, including a lack of access to financing, technical, legal, and business skills or support, and inclusion in planning and decision-making processes.<sup>4</sup> EIDs use clear criteria to target investment to communities of color and low-income communities that have suffered inequitable environmental and economic hardships and employ democratic practices that give residents a decisive role in their community's energy future.

**Strategy Description:** The public input received through the Ready for 100 initiative supported the idea to create a Newtown-specific planning process with input from stakeholders including neighborhood and resident associations, community groups, businesses, faith-based organizations, schools, public agencies, utilities, and nonprofit and philanthropic organizations. The objective would be to establish targeted strategies to achieve the Ready for 100 goals within the Newtown Community Redevelopment Area (CRA) boundaries and foster community leadership and policy engagement, promote equity in energy and resource costs, and generate sustainable economic development and employment opportunities. On April 5, 2018 staff presented the concept of creating a Newtown Energy Plan to the Newtown CRA Advisory Board for consideration to include this goal in the Redevelopment Plan amendments. The concept passed unanimously with specific language being considered at a later date.

**City's Role:** The City shall allocate staff time within the Sustainability, and Economic Development departments to supporting a planning effort through active participation in community meetings, material support, offering meeting space (if needed), and other in-kind contributions. Temporary staff, intern staff, grant funding, or consultant assistance may be needed depending on staff capacity and facilitation needs.

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<sup>4</sup> Center for Social Inclusion. Energy Investment District. Policy Concept Paper. 2014.  
<https://www.centerforsocialinclusion.org/wp-content/uploads/2014/06/EID-Concept-Paper.pdf>

## Roadmap to 100 – Year One Report

Community's Role: Coordinate and facilitate input from stakeholder groups such as neighborhood and resident associations, faith-based organizations, schools, utilities, nonprofit and philanthropic organizations, and community groups to convene with the objective to establish targeted strategies to achieve Ready for 100 goals within the Newtown CRA boundaries.

### **Strategy: Increased Education on Solar Energy Loan Fund (SELF)**

Rank in prioritization: #11

Background: The Solar Energy Loan Fund (SELF) is a nonprofit organization which provides loans, project management, and a list of approved contractors for home improvement projects to improve energy efficiency, water conservation, and storm preparedness in residential homes. Unsecured, low-interest loans are available for all Florida homeowners. SELF focuses on empowering women, veterans, and low and moderate-income homeowners who may have trouble getting loans from other sources. Homeowners work with SELF staff to choose the project that will have the most impact on lowering utility bills and improving quality of life. Loan terms vary for each homeowner and project. Homeowners can save up to 80% on utility bills, with interest rates ranging from 5.0-9.5%.

SELF loans are already technically offered in the Sarasota area (anyone in the state of Florida is eligible) but it is not well marketed and not many local contractors are approved by them or know to offer it as a financing option. Requirements include being the owner of the property, current on property taxes, current on mortgage, have proof of income, and have disposable income each month.

Sarasota County plans to soon begin educational classes on what to consider when financing renewable energy projects. These classes will begin when PACE is adopted and available for community members but will cover other financing options, including SELF and home equity loans.

Strategy Description: Help educate residents on financing options for their energy efficiency, renewable energy and hurricane preparedness projects. Assist homeowners in understanding factors to consider whether PACE, SELF, a home equity loan, or other option is best for their situation. Also, help make contractors aware of SELF loans and how to offer them as a financing consideration for their clients.

City's Role: The City, in partnership with Sarasota County, could help convene local contractors to discuss financing and cover specifically how they could become an approved SELF provider. If contractors are approved, then they can offer SELF to customers who may not meet other financing criteria. City could also include information on SELF loans and other financing considerations in water utility bills, so homeowners can research for themselves how to finance needed energy and water upgrades.

Community's Role: The non-profit SELF should take a leadership role in implementation and education, with community groups assisting in getting the word out.

### **Strategy: Solar Financing for Non-Profits**

Rank in prioritization: #12

## Roadmap to 100 – Year One Report

Background: Nonprofit organizations can often be large electricity consumers yet have complicated barriers to financing energy efficiency and renewable energy. For example, nonprofits often have unpredictable budgets based on donations and grants that can make long term financial obligations more complicated. They also are unable to take advantage of the federal tax benefit, making the economics of installing a solar project more challenging. For these reasons, non-profits need innovative approaches such as leveraging endowments, “sponsor a panel” programs, utility / power purchase agreement (PPA) partnerships, and leasing.

Strategy Description: New community organizing needs to occur to offer education and innovative approaches tailored to the non-profit community for energy efficiency and renewable energy projects.

City's Role: The City of Sarasota can play a supporting role by actively participating and assisting with outreach to this process.

Community's Role: Philanthropic and financing institutions have a potential role to convene and organize on this issue.

### **Strategy: Arts Integration- Public Art & Renewable Energy Generator and Energy + Art Summer Camp**

Rank in prioritization: #13 & #14

Strategy Description: Through the Ready for 100 planning process, the idea was brought up to encourage more public art that also produces renewable energy. The City of Sarasota has a public art committee and a public art fund. A secondary idea for arts integration is to offer a youth camp which specializes in teaching about where our energy comes from and guides the children through making a built solar artwork piece. There are existing national organizations who specialize in these concepts.

City's Role: The City of Sarasota can facilitate a conversation with the Public Art Advisory Board to gauge interest in having renewable energy art be a focus of a future piece. The City can play a supporting role in the summer camp program by presenting to children on the City's renewable energy efforts, offering tours and other novel approaches.

Community's Role: There is currently no organized stakeholder group facilitating these two ideas. Community stakeholders can attend and provide input to the Public Art Advisory Board if the discussion is scheduled for a future public meeting. Private sector institutions can also pursue renewable energy art pieces. The summer camp concept would have to be community-organized with existing educators and energy specialists or funds would have to be raised to bring a national organization to the area to facilitate the program.

### **Post-Meeting Proposal: Engage the Commercial Sector through an Analysis of Barriers and an Enhanced Green Business Recognition Program**

Rank in prioritization: Strategy idea provided after public meetings so was not voted on

Background: Locally, the commercial sector consumes more than double the energy of the residential sector, making targeted strategies necessary for Ready for 100 implementation. The principal technology for onsite power production will likely be solar PV; however, combined heat and power

(cogeneration) may also be important for businesses with large thermal demands such as fabricators, bakeries, breweries, distilleries, and other food processors. Power-generating biodigesters may be deployed by hotels, retirement homes, restaurants, and food processors that generate voluminous organic waste. It makes economic sense for a business to minimize its resource use by efficiency - both technology and process optimization – before deploying renewable energy. Accompanying these onsite power-production technologies could be battery and storage technology to both support uninterrupted operations and charge electric vehicles for transport of goods and personnel.

A key prerequisite to the design and installation of renewable energy production technology is the optimization of resource efficiency, including power, water, and expendables. Adoption of efficiency technologies and strategies by the commercial sector will alleviate pressure on the grid and water distribution system and will cut wastes and pollution, including greenhouse gasses.

**Strategy Description: Assessment of Use and Analysis of Barriers.** The public input received within the Ready for 100 process recommended that the City engage the business community in an open dialog to understand how much green technology is presently being deployed and to identify what barriers – actual or perceived – are impairing its broader usage. Sustainability staff could partner with Sarasota County and the existing Economic Development Corporation Green Economy group, to survey the various commercial subsectors for their usage of green strategies and their disposition toward its expanded adoption. These surveys could then be used to identify case studies of successful deployment and to determine strategies – policies, incentives, or special programs – that will overcome barriers to the wider adoption of sustainable technologies.

The City could build on the success of Sarasota County's Green Business Partnership (GBP) and its wide subscribership to upgrade for increased impact. This program could assess administrative fees to support its administration and would set targets of performance that align with City objectives such as deploying renewable energy, preparing for climate change, phasing out plastics, composting organic waste, and protecting our natural resources. An upgraded program could encourage large community energy users to adopt to the Ready for 100 goals and create a business-specific plan for energy efficiency and renewable energy. Through the Renewable Energy Agreement, Florida Power and Light reaches out to large electric consumers to offer free energy audits. Including education in those audits regarding the Ready for 100 initiative and encourage participation in the Green Recognition Program may assist in gaining more participation for the initiative.

The program may allow for training and certification of third-party verifiers (community volunteers) to facilitate and verify the compliance of applicants with the program's standards. If the participating businesses feel a sense of ownership in the program, they will be asked to extend their support of participating business through social media and other encouragements of patronage.

**City's Role:** The City could take a leadership role through our involvement with the EDC Green Economy group to organize a survey and convene stakeholders to better understand barriers and incentives for the commercial sector. This could, potentially, be coupled with the green building ordinance outreach.

## Roadmap to 100 – Year One Report

The Ready for 100 “Opt-in” program, as presented in the community meetings, scored last in prioritization. *If an enhanced green business recognition strategy moved forward, Sustainability staff would need additional capacity to initiate it, either through a high-skilled intern, temporary staff, or embedding it within an energy coordinator position.*

**Community’s Role:** The community can play a supporting role by encouraging participation among private companies and or a leadership role through a newly formed non-profit or stakeholder group.

### **Strategy: Energy Upgrade volunteer program**

**Rank in prioritization:** This is a current program that launched after the community workshops so was not voted on.

**Background:** Sarasota County launched an exciting new program to assist with energy efficiency upgrades for low-income families. It entails training community members to become Energy Coaches. After the training, these Energy Coaches will then assist in energy education and installations to families in need throughout Sarasota County.

These 5-day training includes the following topics

- Green building basics
- Solar energy basics
- Building impacts on human health
- Energy and water conservation techniques
- How-to perform energy evaluations
- Hands-on in-home energy installs
- Low and no-cost Energy Upgrade strategies
- Financial assistance for energy improvements

**Cities role in implementation:** This is a Sarasota County led program. The City can assist by promoting the program for volunteer recruitment and identifying low-income groups and housing units in the City where energy upgrade improvements could be made and/or education programs offered.

**Community’s role in implementation:** Community stakeholders can help advertise the opportunity and encourage sign-ups for the Energy Coach opportunity.

### Utility Focused Strategies

This section summarizes public input on strategies geared towards ways residents and the City can collaborate with FPL on renewable energy and energy efficiency initiatives.

FPL is a large investor-owned utility with over 4.9 million customers, with Sarasota making up about 1% of its customer base. Large, company-wide decisions require long-term planning (beyond the past 6-month planning process of the Ready for 100 effort) and must meet regulatory conditions and cost thresholds approved by the Public Service Commission. The strategies below were identified by community members during the public input process and reviewed by FPL staff for comments.

**Strategy: Create a new official collaborative agreement (such as a Memorandum of Understanding or updated Renewable Energy Agreement) with Florida Power and Light to work together on new projects towards Ready for 100 goals**

Background: FPL is the electric provider in the geographic boundaries of the City of Sarasota. In 2010, a 30-year agreement was negotiated with the City, including a Renewable Energy, Energy Efficiency and Energy Sustainability Agreement (the Renewable Energy Agreement – see Appendix C). This Renewable Energy agreement required specific stipulations of FPL including: free electric vehicle charging stations, conducting home energy makeovers, energy efficiency youth education, building some solar installations, and more.

Since 2010, the context with the City of Sarasota and FPL has changed in the following ways:

- The City has made aggressive greenhouse gas reduction and renewable energy commitments;
- Other communities around Florida (including in FPL's market) have made aggressive greenhouse gas and renewable, zero-emission energy commitments;
- The price of solar and storage have declined considerably;
- FPL has begun to significantly invest in solar farms; and
- The Public Service Commission has approved third-party leasing in Florida.

Strategy Description: Public input through the Ready for 100 planning process included a recommendation for the City and FPL to create a new MOU or re-negotiated Renewable Energy Agreement (with structured input from Ready for 100 stakeholders) to develop new strategies under the Ready for 100 commitments to reach the city's goal of 100% renewable, zero-emission energy by 2045. Potential items to be negotiated could include a renewable, zero-emission energy target from FPL's grid mix, energy conservation goals and programs, and a FPL / City partnership for low income-qualified solar programs.

FPL Response: Although changes have occurred with regards to renewables over the last eight years since the Renewable Energy Agreement was signed, FPL feels the agreement allows considerable leeway for implementation strategies and ensures to work alongside the City to move towards a renewable future.

Due to the size, magnitude, and multiple areas of focus already underway through the Renewable Energy Agreement and for the entire Ready for 100 project in totality, FPL recommends ensuring all strategies in the agreement are exercised to their fullest and therefore concentrating on other areas of the READY FOR 100 implementation besides creating a new agreement.

**Strategy: Increase awareness on free energy audits and FPL energy saving programs and rebates**

Background: FPL offers free home energy surveys to all its customers yet as part of the Renewable Energy Agreement each resident in the City of Sarasota also receives free energy efficiency items. These surveys help residents and businesses understand the energy load from their home's appliances and business equipment and provides information on low-cost upgrades, relevant rebate programs for energy efficiency upgrades and more.

## Roadmap to 100 – Year One Report

**City's Role:** Include information in business audits we currently conduct on recycling. Refresh website with audit information. Include flyers at educational events. Include information in utility mailers.

**FPL Response:** FPL will continue its advertising and education on home energy programs and Business Energy Evaluations.

**Community Role:** Increase awareness about the free energy audits to groups such as community associations, neighborhood associations, and faith-based groups.

**Other Strategies:** A rooftop solar leasing program, on bill financing options for energy efficiency or renewable energy projects, Offering power purchase agreements with FPL as owner.

### **Strategy: Explore Public / Private Land Opportunities for Solar**

#### FPL & City Collaboration Planned for FY 2018/19 Under the Renewable Energy Agreement

The Renewable Energy Agreement (Appendix C) was adopted in 2010 and identifies projects FPL and the City will implement. This section summarizes the projects the City and FPL will be collaborating on in Fiscal Year 2018/19 as part of this Renewable Energy Agreement. Although these projects are not new or due to the Ready for 100 commitment, they are in line with Ready for 100 goals and therefore worth identifying in this report.

### **Educational Programs**

**Background:** The Renewable Energy Agreement states that FPL shall provide educational resources and programs that inform Citizens on issues related to energy efficiency and conservation and on the benefits and technology associated with renewable energy. Specifically, FPL shall coordinate and schedule with the City performances at mutually agreed upon sites and venues (such as public schools or Van Wezel).

**Activities for FY 2018/19:** City staff will assist in scheduling the newly-formatted programming (no longer “Captain Conservation and Professor Whys” presentations) and disseminating resources in local schools. City staff will contact School District representatives and assist in ensuring they are aware of the program offerings. FPL will provide the educational programs, resources and/or teacher trainings. FPL reports 5 of these programs have been conducted each year since 2015, reaching 2500 local school children annually.

### **Energy Audits (Municipal)**

**Background:** The Renewable Energy Agreement states that FPL would conduct energy audits of all city accounts and five years later conduct follow-up energy audits. FPL conducted the original audits in 2011 and we are proposing new assessments for FY 2018/19.

**Activities for FY 2018/19:** City staff will work with FPL and receive energy audits of the 10 city facilities being evaluated for renewable, zero-emission energy through the solar feasibility assessment.

### **Energy Audits (Residential)**

## Roadmap to 100 – Year One Report

Background: The Renewable Energy Agreement states that within 30 days of the original execution of the agreement FPL will perform energy audits on the 100 largest electricity-consuming accounts located in the City, upon receiving customer consent. Then, within five (5) years, perform energy audits for the fifty (50) largest Customer Accounts.

Activities for FY 2018/19: City staff will work with FPL to conduct targeted outreach and a mailer to the top 50 electricity customers to make them aware of the City's 100 % renewable, zero-emission energy effort and opportunity for a free energy audit from FPL.

### **Home Energy Surveys & Home Energy Makeover Initiative (HEMIs)**

Background: The Renewable Energy Agreement states that FPL will provide 1500 Home Energy Makeovers during the agreement term and will offer Home Energy Surveys to all residents. Home Energy Surveys originally had no target number identified in the agreement and were generally less involved than the Home Energy Makeovers. For the first three years the HEMIs were structured as targeted days where volunteers and FPL staff would conduct energy efficiency upgrades for pre-identified homes. This model proved difficult due to challenges in identifying enough homes for the work days. Because of this challenge, the model changed in 2014, with FPL and the City encouraging the Home Energy Surveys instead of implementing HEMI's. City residents that receive an in-person Home Energy Survey received a leave-behind kit. This leave-behind kit includes materials to be installed such as compact fluorescent lightbulbs and weather stripping, like what was previously provided in the Home Energy Makeover Initiative.

Activities for FY 2018/19: The City will continue encouraging residents to receive Home Energy Surveys via the City Sustainability website, FPL website and at educational events. The City also proposes to collaborate with a Sarasota County program currently being created that will provide energy efficiency upgrades and education for residents in public housing. FPL has agreed to provide support with educating the Energy Coaches and at the volunteer working days within the public housing units. This support would align with the Renewable Energy Agreement's original structure by offering Home Energy Makeovers and Home Energy Survey beginning next year. The details are still being worked out, but this collaboration would target households that pay a disproportionate amount of their income to their energy bills because of inefficiencies in their home or low SEC status. The targeting of these groups is a priority in the Ready for 100 commitment.

### **Non-Profit Energy Makeovers**

Background: The Renewable Energy Agreement states that FPL will provide 15 Nonprofit Energy Makeovers (NEMOs).

Activities for FY 2018/19: City staff will work with FPL by proposing two sites for a Non-Profit Energy Makeover.

### **Educational Testing Facility**

**Background:** The Renewable Energy Facility states that FPL will establish an educational testing facility on a site approved by the City and acceptable to FPL where FPL can test and demonstrate new renewable energy products and technology.

**Activities for FY 2018/19:** FPL staff are working within their internal processes to have the City of Sarasota considered as a testing location for emerging solar technologies. During FY 2018/19 - the City and FPL will continue to assess partnership opportunities for solar installations, including at Verna Wellfields (after the solar assessment results are complete).

### Municipal Focused Strategies

This section summarizes current strategies identified to help city operations become more energy efficient and meet its demand for electricity with renewable energy. Although the public input process solicited ideas from community stakeholders on municipal-focused strategies, because the implementation relies on staff, the sustainability and facility program are leading these efforts and updating community stakeholders at meetings on the progress. The current plan for the municipal goal includes the following projects:

**Solar Feasibility Assessment:** This analysis began in May of 2018 and entails working with a solar contractor to provide a detailed feasibility and cost analysis for 10 high electricity-consuming city facilities. The analysis will provide the cost and solar system details to cover 50% and 100% of the electrical demand. This assessment will also be analyzing Verna wellfields, a 2,000-acre location to understand the opportunities and conditions specific for this site. The results of this analysis will be presented to city commission and will inform a budget for installations over time, grant applications, etc. Lastly, the City will be assessing the feasibility of solar + battery storage for an emergency operations shelter as a first-step assessment of using solar for resiliency benefits.

**Ready for 100 Integration Across Departments:** Sustainability staff will present updates to the Executive staff team (all city directors) at least twice per year on the Ready for 100 effort and request close collaboration on any projects across departments with energy impacts. Staff will also be collaborating closely with the Facilities department on the results of the solar feasibility assessment and energy audits to coordinate funding request and recommended projects.

**Energy Audits:** The City will work with FPL to conduct detailed energy audits for the same 10 high electricity-consuming city facilities that are being assessed for solar potential. The results of this analysis will be coupled with the results of the solar feasibility assessment to inform a budget for energy efficiency and solar installations over time.

**Electric Vehicles in Fleet** – Sustainability staff will initiate conversations with the fleet, public works, and finance departments to discuss budget proposals and ideas for more strategically integrating electric vehicles into the City fleet. Meetings will begin in FY 2018/19 and will become more targeted in 2020.

**Form Internal Team for Legal Review and Concept Development:** Staff recommends forming an internal team with representation of the City Manager's office, City Attorney's office, Utilities and Facilities Department to review the technical, legal, and financial feasibility of installing and/or purchasing renewable energy for municipal operations. An initial legal review of the franchise

agreement with FPL and state statutes by the City Attorney's office identified an opportunity for the city to potentially pursue purchasing renewable energy if (a) The electric energy is produced in Sarasota County; (b) The entity that produces the electric energy uses technology recognized as renewable under Section 337.803 or Section 366.91 Florida Statutes; and finally; (c) The City must conduct a competitive solicitation process before contracting with the provider of such renewable, zero-emission energy to power City facilities. FPL would have the right, but not the obligation, to participate in the competitive selection process on the same basis as the other proposers. If FPL did not participate in the process or is not selected, all the other terms of the Franchise Agreement would remain in effect. This potential needs to be explore more with review of state net metering and renewable energy laws. Additionally, this team can review the results of the solar feasibility assessment at Verna Wellfields and assess options based on policy and legal constraints. Estimated timeline:

FY 18/19- solar and energy efficiency analysis complete. Form internal team with outcome being a plan and budget for solar installations and efficiency projects to be implemented over time.

FY 19/20- begin implementation of solar and energy efficiency projects; continue legal review and concept development for purchasing/installing locally-produced renewable, zero-emission energy for city operations.

FY 20/21- continue implementing energy efficiency and on-site renewables and begin implementing the recommendations of the legal review and concept development for purchasing/installing locally-produced renewable, zero-emission energy for municipal operations.

### Transportation Focused Strategies

The Ready for 100 target includes the eliminating fossil fuels used in the transportation sector. During the initial community meetings, strategy ideas were solicited on ways to transform gas and diesel vehicles to renewable sources and to support walkability and bikeability. The City of Sarasota recently hired two new transportation planners to begin creating a Transportation Master Plan in the summer of 2018. Through the Ready for 100 community input, it was decided to imbed the Ready for 100 goals and focus the transportation-specific engagement within that upcoming planning effort. The Transportation Master Planning process has begun in the summer 2018, with the objective to support expansion of transportation options throughout the city and document a vision for the long-term multimodal transportation system, provide policy direction and guide the implementation of transportation options throughout the city. The process of creating the Transportation Master Plan will involve stakeholder engagement both in public meetings and online, an existing conditions assessment that includes a citywide traffic network study, an analysis of needs and opportunities, and an implementation plan. During the Needs Analysis and Opportunity phase, staff will research best practices from around the US and other countries to determine opportunities for expanding transportation options that reduce energy consumption in the transportation sector along with other Ready for 100 goals. The implementation plan will lay out the city's transportation priorities, timing, and funding for the projects identified.



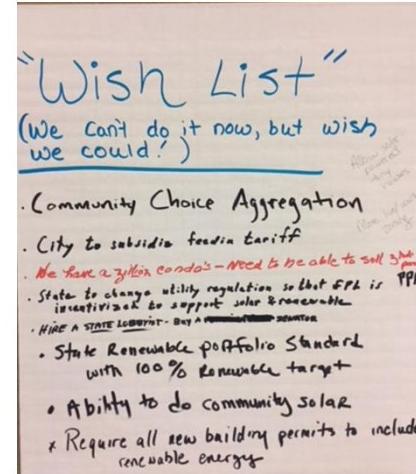
Figure 8: Draft Project Timeline for Transportation Master Plan

Additionally, there are other transportation-related planning efforts underway for stakeholder involvement, including the City's Form Based Code and the Sarasota / Metropolitan Planning Organization (MPO's) regional Active Transportation Plan. City staff plan to interact with these external planning processes and provide input related to the Ready for 100 goals. Also, Ready for 100 stakeholders will be informed of these related public meetings as they are scheduled.

### A Community-Informed “Wish List” for State-Level Policy Changes

The community meetings began by reviewing Florida-specific policies that impact strategies related to the Ready for 100 planning process. This was done to build a foundation of knowledge to solicit strategy ideas that were currently allowed under our state legislation and utility framework. We did, however, solicit ideas for community members on state level policies they would like to see allowed and that they felt could significantly impact Ready for 100 implementation. **This feedback could serve as a starting point for elected officials to understand as they choose policies to advocate for at the State level and city legislative priorities.** Elected officials could become leaders in state energy policy through engagement within the public utilities commission or Florida League of Cities. The summary of the community input on state / utility policies they would like improved are below:

- Allow Community Choice Aggregation
- Allow Power Purchase Agreements
- Implement Renewable Portfolio Standards for all Utilities
- Ensure Qualified Consumer Advocates to Serve on Public Utilities Commission
- Allow Virtual Net Metering



Community “Wish List” for Future Policy Changes

## Roadmap to 100 – Year One Report

- Encourage FPL to Implement Community Solar (similar to Orlando's model and allowing low-income program)
- Remove the 2 MW individual system size limit for solar installations and net metering
- Streamline interconnection standards to ensure that they are transparent, straightforward, and fair for energy customers when connecting their renewable energy system to the grid

Locally, community input included a desire for more live/work zoning, tiny homes, and for all new construction to include renewable energy. More information and descriptions on these policies can be provided to policy makers upon request.

### Sustainability Program Work Plan for Fiscal Year (FY) 2018/19

To provide clarity on tasks the Sustainability Program will undertake during FY 2018/19 for the Ready for 100 effort, this section summarizes a Work Plan anticipated for the coming year. As this workplan is reviewed, it should be noted that the Sustainability Program includes a staff of two that cover other Commission and community priorities beyond Ready for 100-specific projects. Other Sustainability projects anticipated for FY 2018/19 include initiating a community-oriented climate adaptation planning process, installing living seawall at Bayfront Park, supporting community composting, installing living shoreline at G-Wiz property area, implementing climate adaptation plan projects and integrating within the capital improvement plan, facilitate an internal green team and Earth Day event, conducting recycling and solid waste and fats/oils/greases audits for commercial businesses, pursue grants for Whitaker bayou restoration and other sustainability projects, improving access to public recycling, etc.

Due to the vast number of projects and no anticipated increase in staff this fiscal year, work projects must be prioritized due to capacity. This table represents the recommended Ready for 100 projects for sustainability program staff to work on during FY 2018/19. Note that many of these projects will continue in future years but this list focuses only in FY 2018/19 tasks. Below the table lists additional projects that could be worked on with additional capacity or financial resources.

Table 4: Sustainability Program Staff Fiscal Year 2018/19 Workplan

Strategy	Tasks to Complete in FY 2018/19
Marian Anderson Place	Ensure Phase II negotiations align with Ready for 100 Begin identifying potential partners for employment in construction, renewable, zero-emission energy, remodeling, HVAC field
Green Building Code	Upon Commission direction, conduct public outreach to inform a stronger green building code, conduct required public hearings and Commission meetings
Solar Co-Op	Play a supporting role by providing event space, media assistance, present at educational workshops
Implement PACE	Present to City Commission for consideration in adopting PACE within the City of Sarasota city limits. Advertise Sarasota County's educational efforts on what factors to consider for solar financing –

	"how to assess if PACE is right for you?"
Education on SELF Loans	In partnership with Sarasota County, convene local contractors to discuss local financing options. Include information for how to become SELF approved and offer it to clients who may not meet other financing criteria.
Newtown Energy Plan	Provide support to a community-led planning effort to create a Newtown Energy Plan within Newtown CRA boundaries that will likely begin in 2019.
Renewable Energy & Public Art	Present to Public Art Advisory Board to gauge interest in integrating renewable energy focus on a future public art installation
Survey commercial sector on barriers towards adoption of renewable energy	Work within the EDC Green Economy group to develop a survey and/or convene focus groups to better understand barriers and incentives related to renewable energy adoption and resource efficiency.
Energy audits of 10 city facilities	Lead and manage energy audits. Develop recommendations and budget requests in collaboration with facilities for needed upgrades.
Home energy makeovers in public housing	Partner with Sarasota County, Sarasota Housing Authority, and FPL in their energy coaches program. Assist with low income outreach and work days on SHA properties in City limits.
Non-Profit energy makeovers	Identify non-profits in the City for these for FPL follow-up
Solar feasibility assessment	Review results, couple with energy audit results, and develop budget requests over time for energy needs

If funding sources and/or additional staff capacity is realized, the following additional items could be pursued in FY 2018/19. If not, then budget issues may be requested in FY 2019/20 to pursue:

- Legal review and concept development to acquire renewable energy from a third-party source for municipal operations
- Technical assistance to better understand each strategies impact towards the specific ready for 100 goals, a solar rooftop potential analysis (GIS/LIDAR based), and/or research on the benefits and challenges associated with local or state-wide renewable energy credits
- Partial support for a regional SELF loan representative
- Enhanced green business certification program

## Conclusion

The City of Sarasota facilitated the community meetings and planning effort as a first step toward the transition to more renewable, zero-emission energy and energy efficiency. Over the next year, the goal is to be accountable to the community by implementing the workplan and updating on progress at bi-annual public meetings. The hope is that this plan will encourage greater community involvement and strengthen partnerships to make Sarasota a leader in clean and smart energy use. The City understands

## Roadmap to 100 – Year One Report

more technical analysis is needed and that all the answers to how we will transition over the next 27 years are not known, yet we are fully committed to progressively learning the options and striving to make this City an economically, socially, and environmentally appealing place to live, work and visit for generations to come.

## Appendices

Appendix A: Resolution

RESOLUTION NO. 17R-2648

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF SARASOTA, FLORIDA FOR A TRANSITION TO 100 PERCENT RENEWABLE, ZERO EMISSION ENERGY SOURCES IN ACCORDANCE WITH THE 100 PERCENT RENEWABLE ENERGY INITIATIVE; PROVIDING FOR READING OF THIS RESOLUTION BY TITLE ONLY; AND PROVIDING FOR AN EFFECTIVE DATE.

**WHEREAS**, the City of Sarasota is a coastal community on the front lines of the environmental, economic and public health impacts of climate change stemming from sea level rise, storm surge, flooding, and rising temperatures; and

**WHEREAS**, the City of Sarasota seeks a healthy, sustainable future with less toxic pollution threatening residents and more economic growth opportunities for workers; and

**WHEREAS**, the transition to 100 percent renewable, zero emission energy sources, such as solar power, will improve air and water quality and protect public health, particularly for the most vulnerable across our community; and

**WHEREAS**, 100 percent renewable, zero emission energy sources as well as energy efficiency represent an enormous economic opportunity for City of Sarasota to create jobs in an emerging industry and expand prosperity for residents; and

**WHEREAS**, one out of every 50 new jobs added in the United States in 2016 was created by the solar industry; and

**WHEREAS**, 100 percent renewable, zero emission energy sources and energy efficiency now offer greater economic security, lower electricity costs, and an affordable energy solution for City of Sarasota residents; and

**WHEREAS**, according to the U.S. Department of Energy, solar costs are down between 54 percent and 64 percent from 2008; and

**WHEREAS**, individuals, families, businesses, and institutions throughout the City of Sarasota seek greater energy freedom through the expansion of distributed 100 percent renewable, zero emission energy sources like rooftop solar; and

**WHEREAS**, business analysts have called Florida "the sleeping giant" of the solar industry; and

**WHEREAS**, in November 2016, the City of St. Petersburg became the first city in Florida to commit to transitioning to 100 percent renewable, zero emission energy sources; and

**WHEREAS**, the City of Sarasota has previously established a 35% community-wide greenhouse gas emission reduction goal by 2025, from a 2003 baseline; and

**WHEREAS**, the City of Sarasota has previously established a 35% municipal operations greenhouse gas emission reduction goal by 2025, from a 2003 baseline; and

**WHEREAS**, the City of Sarasota has established fast track permitting for private sector LEED certified buildings; and

**WHEREAS**, the City of Sarasota has entered into a "Renewable Energy, Energy Efficiency, and Energy Sustainability Agreement" with Florida Power and Light, as part of the 2010 Franchise Renewal; and

**WHEREAS**, the City of Sarasota has established that all new City buildings and major renovation projects shall use sustainable measures as outlined in LEED certification or "Alternative Compliance Pathways for Incentives"; and

**WHEREAS**, the City of Sarasota has established that all new urban expansion and infill developments shall use sustainable measures as outlined in LEED certification or "Alternative Compliance Pathways for Incentives"; and

**WHEREAS**, the City of Sarasota comprehensive plan stipulates that the City shall "actively pursue 100 percent renewable energy installations for City facilities"; and

**WHEREAS**, residents of the City of Sarasota and Sarasota County have recently formed a co-op to use their buying power to secure discounted prices for solar panels; and

**WHEREAS**, there is broad support for a just transition to 100 percent renewable, zero emission energy sources from City of Sarasota residents, business and institutions; and

**WHEREAS**, "renewable, zero emission energy" includes energy derived from solar, wind power sited in ecologically responsible ways, existing and low-impact hydroelectric, geothermal, and ocean/wave technology sources.

**NOW THEREFORE BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF SARASOTA, FLORIDA:**

Section 1. The City of Sarasota adopts a community-wide target of powering the City with 100 percent renewable, zero emission energy sources not later than 2045.

Section 2. The City of Sarasota adopts a target of powering municipal operations with 100 percent renewable, zero emission energy sources not later than 2030, including at least 50 percent by 2024.

Section 3. The City Commission of the City of Sarasota direct its Sustainability Manager to incorporate these targets into the City's Climate Change Vulnerability Assessment and Adaptation efforts and planning processes and to work with community stakeholders to devise implementation strategies.

Section 4. The City of Sarasota, in pursuit of these targets, will seek to build inclusive community leadership and policy engagement, promote equity in energy and resource costs and ownership of related technologies, generate sustainable economic and employment opportunities and mitigate related losses; and provide regional leadership to address equity in climate and energy.

Section 5. The City of Sarasota Sustainability Manager will report on progress to the City Commission towards these goals every two years, beginning in 2018.

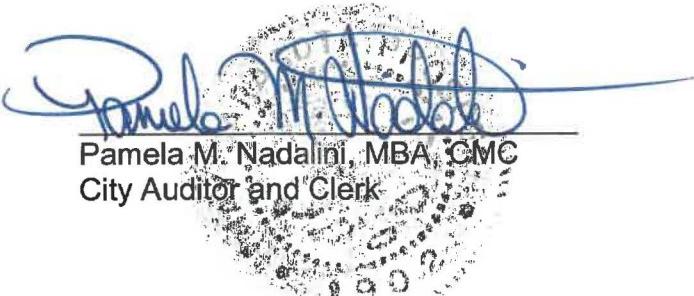
Section 6. This resolution shall take effect immediately upon adoption.

ADOPTED by the City Commission of the City of Sarasota upon reading by title only, after posting on the bulletin board at City Hall for at least three (3) days prior to adoption, as authorized by the Charter of the City of Sarasota this 19th day of June, 2017.



Shelli Freeland Eddie, Mayor

ATTEST:



Pamela M. Nadalini, MBA, CMC  
City Auditor and Clerk

- Y Shelli Freland Eddie, Mayor
- Y Liz Alpert, Vice Mayor
- Y Commissioner Jennifer Ahearn-Koch
- Y Commissioner Hagen Brody
- Y Commissioner Willie Charles Shaw

Appendix B: Methodology for estimating the amount of on-site renewable, zero-emission energy within the City of Sarasota

- Total City of Sarasota kWh for one year = 863,865,102
- Total estimate of kWh coming from FPL grid electricity renewables of 0.4% = 3,445,460
- The average size of Sarasota County installations is 8.9 kW
- 0.3% of all Sarasota County accounts had a solar interconnection
- Total number of City of Sarasota accounts are 33,198
- $33,198 \times .003 = 99.594$ . This is the estimate of the number of City of Sarasota accounts with a solar interconnection.
- Average kWh production per day (given daylight hours) we used the average size of 8.9 kWh  $\times 0.85 \times 6 = 45.39$  kWh for one day.
- $(99.594 \times 45.39 \text{ kWh}) \times 365 = 1,650,009$  kWh per year is the estimate from on-site solar from City of Sarasota accounts over a year period.
- Adding the kWh from FPL grid electricity coming from renewable sources to the estimate of kWh from City of Sarasota solar interconnections =  $3,445,460 \text{ kWh} + 1,650,009 \text{ kWh} = 5,105,469$  kWh as the overall local estimate of electricity coming from renewable sources
- Renewables = 5,105,469 kWh Non-Renewables = 860,409,642 (Total kWh – FPL's grid renewables of 0.4%)
- $5,105,469 \text{ kWh} / (863,865,102 \text{ kWh} + 1,650,009 \text{ kWh}) = 0.6\%$  local electricity coming from renewables

Roadmap to 100 – Year One Report

Appendix C: Renewable Energy Agreement

**RENEWABLE ENERGY, ENERGY EFFICIENCY, AND ENERGY  
SUSTAINABILITY AGREEMENT**

**BETWEEN**

**THE CITY OF SARASOTA, FLORIDA**

**AND**

**FLORIDA POWER & LIGHT COMPANY**

This Renewable Energy, Energy Efficiency, and Energy Sustainability Agreement (the “**Agreement**”), dated as of November 1, 2010 (the “**Effective Date**”), is entered into by the City of Sarasota, Florida (hereinafter, the “**City**”), located at 1565 1st Street, Sarasota, FL 34236, and Florida Power & Light Company (hereinafter, “**FPL**”), located at 700 Universe Boulevard, Juno Beach, Florida 33408 (Sarasota and FPL individually a “**Party**”, jointly the “**Parties**”).

**W I T N E S S E T H**

**WHEREAS**, the City is a significant consumer of electric power with land and facilities that may be available for renewable energy projects;

**WHEREAS**, FPL is the electric power utility serving the City; and

**WHEREAS**, each of the City and FPL is committed to expanding the use of renewable energy resources, in creating energy efficiencies, and in promoting and implementing measures and practices that will improve energy sustainability and independence of the City of Sarasota, the Sarasota community generally, and the State of Florida as a whole, in compliance with respective Federal and State energy policies and directives;

**NOW, THEREFORE**, for and in consideration of these premises, the mutual undertakings and agreements herein contained and assumed, and good and valuable consideration, the receipt and sufficiency of which the Parties hereby acknowledge, and subject to the terms and conditions hereinafter set forth, the City and FPL hereby covenant and agree as follows:

**A. Background**

The City and FPL are committed to providing clean, reliable and affordable energy to the citizens of Sarasota (the “**Citizens**”) and are interested in promoting energy efficiency and renewable energy through state-of-the-art pilot programs and projects. In furtherance of these objectives, this Agreement sets forth the framework pursuant to which the City and FPL shall jointly develop, install, manage and maintain the energy conservation projects (“**EC Projects**”) and renewable energy projects (“**RE Projects**”) identified herein (the EC Projects and RE Projects jointly referred to as the “**Energy Projects**”),

and also sets forth other measures and commitments of the Parties to promote, encourage, and implement energy conservation, energy efficiency, renewable energy, and energy sustainability measures as contemplated herein.

The Energy Projects and other energy sustainability measures set forth herein would be developed and designed to provide the City and the Citizens with energy efficiency and renewable energy benefits on a long-term basis. Further, the Energy Projects shall be developed and installed on land, or at facilities, owned by the City and will utilize equipment, services and labor contributed by the City and FPL, as appropriate.

As detailed in Section B, Scope of Energy Projects, the Parties will adopt a “phased” approach in developing and implementing the Energy Projects and in achieving the energy efficiency and renewable energy goals and objectives. As detailed below, Phase 1 would consist of Energy Projects that could be implemented, subject to the City’s support and cooperation, in the short term (i.e., six (6) to eighteen (18) months) and would require no (or limited) Florida Public Service Commission (“FPSC”), governmental or other regulatory approvals (the “**Required Approvals**”). Phase 2 would consist of Energy Projects that require more time to implement and would need, and be subject to, certain Required Approvals and/or the passage of enabling legislation.

## B. Scope of Energy Projects

### 1. Phase 1 Energy Projects:

Phase 1 EC Projects and RE Projects will be implemented by FPL and the City in the short term and will be designed to provide the City with demonstrable, long-term energy efficiency and renewable energy awareness for its Citizens. FPL shall designate a liaison (the “**Liaison**”) to the City who shall be responsible for the start up of Phase 1 activities and coordinating FPL’s and the City’s efforts to implement efficiently and effectively the Phase 1 Energy Projects consistent with the terms herein. Specifically, the Liaison shall: (i) coordinate, schedule and support project development and implementation activities (as such are set forth in this Agreement) between the City and FPL; (ii) assist in implementing the energy audits and in attaining the efficiency goals (as such are set forth below); (iii) promote renewable project development and energy efficient programs in the City. Phase 1 will focus on energy education and on implementing specific pilot programs pursuant to which FPL would test at City sites and facilities energy conservation programs and clean energy equipment to determine if such programs and equipment are appropriate for deployment on the FPL utility system.

Phase 1 Energy Projects shall consist of:

- (a) Educational resources and programs to inform and instruct the City and its Citizens on issues related to energy efficiency and conservations programs and on the benefits and technology associated with renewable energy. Specifically, the Liaison shall coordinate and schedule with the City performances by Captain Conservation and

Professor WHYs at mutually agreed to City, and other public, sites and venues (such as public schools, the Van Wezel Performing Arts Hall, or GWiz).

- Captain Conservation Saves the Day is a program that teaches children to be heroes by conserving energy through fun, original and interactive songs. Captain Conservation is the world's only singing, guitar-playing, nature-conscious, costumed superhero.
- Professor Whys Powerful Adventure is a program that brings science to life through fun and interactive demonstrations. The entertaining and educational program helps to prepare students for the science FCAT and offers an exciting way for students to get enthusiastic about science.

(b) Energy audits for City facilities and Citizens.

- The energy audits to be performed by FPL (as detailed herein) will be designed to identify the maximum, cost-effective energy savings per audit and will take into account: (i) the customer's reasonable expectations in identifying the maximum, cost-effective energy savings per audit; (ii) all incentives available from FPL; and, (iii) if available, those incentives from state or federal governments and private foundations, including tax credits and other tax benefits from the City (and any other source identified by the City or FPL). Such Energy Audits will be consistent with, and commence promptly following the approval by the FPSC of, each applicable FPL's demand side management ("DSM") plan.
- Within thirty (30) days of the Execution Date, FPL and the City will meet to develop an agreeable energy audit schedule (the "**Schedule**") for City facilities and for large energy users located within the City. The Schedule will provide that, prior to December 31, 2015, FPL shall perform energy audits on: (i) all of the City's electric accounts (the "**City Accounts**"), and (ii) subject to the receipt of a customer consent related to the performance of an energy audit, the 100 largest electricity-consuming accounts (excluding the City's accounts) located in the City (the "**Customer Accounts**"). FPL will cooperate and work with the City in its efforts to obtain the consent of all such customers. Notwithstanding the foregoing, pursuant to FPL's DSM Plan and applicable regulation, FPL will remain obligated to provide energy audits to other customers and accounts as may be requested (the "**Additional Energy Audits**").
- After the completion of the first cycle of energy audits (as provided for above) throughout the Term and promptly following the approval of each succeeding DSM plan, FPL and the City will meet to develop an agreeable Schedule of energy audits related to the City Accounts and the Customer Accounts. FPL will, within five (5) years following approval of such Schedule, perform

energy audits on the City Accounts and fifty (50) of the largest Customer Accounts in a manner consistent with the procedures set forth above.

- Energy audits performed by FPL related to the City Accounts and Customer Accounts shall be without charge to the City or customers whose usage and facilities are audited. Additional energy audits shall be conducted pursuant to FPL's then-currently-approved energy conservation programs or tariffs, as applicable, including any charges to customers provided for in such program or tariffs. Subject to and within the overall time frames specified above, FPL and the City will cooperate to develop an agreeable energy audit schedule for City facilities and large energy users located within the City.
- FPL will offer energy savings strategies for Citizens to promote additional energy savings for residential, business, and institutional energy users and FPL incentives will be applied to such strategies where applicable. The City: (i) will develop and offer to Citizens additional incentives related to services not covered by FPL, and (ii) may offer additional incentives to supplement FPL's incentives for energy efficiency, energy conservation, and renewable energy measures and technologies identified as being appropriate by the City; provided, however, FPL will continue to make its incentives available without regard to whether the City is offering supplemental incentives to promote designated measures and technologies.
- FPL and the City will encourage Citizens to participate in the FPL Home Energy Survey, online, over the phone or in person. The Home Energy survey shall include the following: (i) a personalized, convenient and expert energy-saving analysis of a Citizen's energy use; (ii) specific ways to save money on electric bill and energy-saving recommendations; (iii) a convenient method to ascertain what home appliances have the highest operating costs and how much such appliances contribute to a household's electric bill; (iv) the ability to test energy efficiencies by using different thermostat settings; (v) an overall guide for an energy-efficient home; and (vi) a printable report detailing specific ideas on how to manage individual electric consumption.
- The City will facilitate the implementation of the energy audits by disseminating relevant information regarding the energy audit program and energy efficiency to the Citizens through its "conservation" page on the City's web site. Further, the City will cooperate with FPL in promoting the energy audits contemplated by this Agreement and by FPL's DSM Plan, including to the extent applicable, by making available to FPL the assistance of the City's Sustainability Manager or similar personnel with energy conservation responsibilities to assist in the efforts contemplated by this Agreement.

(c) "Green" buildings and design. FPL shall support the construction of energy efficient, sustainable buildings within the City by sponsoring and paying for complete LEED "Existing Building" certification classes for a City employee or, at the

City's option, the Green Building Basic course of study; provided, the cost of such sponsorship shall not exceed \$2,000.00. Such instruction would assist the City in understanding the requirements in the various categories leading to LEED certification and could facilitate the adoption by the City of LEED construction standards for new or retrofitted City buildings.

(d) Establishing an educational testing facility (the "ETF") on a site approved by the City and reasonably acceptable to FPL, in which FPL shall test and demonstrate new renewable energy products and technology. Examples of such "tested" technology would be:

- New solar photo voltaic ("PV") panels
- Solar technology
- Energy efficiency product testing for DSM plan development

As part of the ETF, FPL would also provide within the City a demonstration facility utilizing electrical pole mounted solar panels incorporating "Smart Grid" technology. Specifically, FPL would install five (5) Petra Solar pole-mounted panels with Smart Grid capability. This demonstration project would be a precursor to the installation of Smart Grid technology throughout the City, which is anticipated to occur in a 2012 – 2013 timeframe. The City shall own, and be responsible for, all energy, and associated green attributes, generated by the ETF, except that FPL shall own, and be responsible for, the energy, and associated green attributes, generated by the Petra Solar pole-mounted panels.

(e) The development of a "Solar School". FPL would cause the installation of solar PV array (2 – 5 kW) at Booker High School (or such other, appropriate public school identified by the City and reasonably acceptable to FPL). The Solar School project would include a curriculum and training for teachers related to solar PV technology. Also, a website would be developed that would track and monitor the energy generated by the solar array. The City (or the appropriate governmental entity) shall own, and be responsible for, all energy, and associated green attributes, generated by the Solar School.

(f) The installation of five (5) Electric Vehicle ("EV") charging stations (the "Original Stations") and, on that date five (5) years from the original installation date, the installation of an additional ten (10) EV charging stations (the "Additional Stations"), at a parking garage or alternative site approved by the City and reasonably acceptable to FPL; provided, prior to the installation of the Additional Stations the City shall demonstrate to FPL's reasonable satisfaction that the demand for, and use of, the Original Stations warrants the installation of the Additional Stations. The EV charging stations would be designed to promote and educate the Citizens on the benefits of EVs. The initial installation would be the first deployment of an EV product of this type by FPL. FPL would also install solar panels associated with the EV charging

stations. This installation would utilize state of the art PV panels and be the "first of its kind" installed by FPL. FPL shall own, and be responsible for, all energy, and associated green attributes, generated by the EV charging stations; provided, the energy, and associated green attributes, generated by the PV panels installed as part of the EV charging stations will be contributed by FPL to the City and, provided, further, the City shall have the discretion to charge and collect a usage fee related to the EV charging stations.

(g) Home Energy Makeovers and Nonprofit Energy Makeovers.

During the Term, FPL will provide to the City: (i) 1500 home energy makeovers pursuant to FPL's Home Energy Makeover Initiative ("HEMI"); and (ii) 15 nonprofit energy makeovers pursuant to FPL's Nonprofit Energy Makeover Initiative ("NEMO") ((i) and (ii) the "**Makeover Services**"). The Makeover Services will be provided to the City, and Citizen-recipients of the Makeover Services will be selected, in a manner consistent with the HEMI or NEMO programs (as applicable). Commencing in year 2011 and during the Term, FPL will schedule and complete (i) 1500 HEMI Makeover Services; and, (ii) fifteen (15) NEMO Makeover Service. FPL will consult with the City, and the City shall cooperate reasonably with FPL, regarding the scheduling of and the recipients receiving the Makeover Services.

During the Term and with regard to the ETF, the Solar School and the EV charging stations (the "**Identified Projects**"), FPL will, promptly at the end of the "useful life" of the renewable energy technology installed at the Identified Projects (the "**Upgrade Date**"), upgrade and replace such renewable energy technology (the "**Upgrade Service**"). Such Upgrade Service will consist of replacing or supplementing (as applicable) the installed renewable energy technology with then-current "state of the art" technology. Additionally, as part of the Upgrade Service, FPL will double the amount of renewable energy technology installed at the Identified Projects (the "**Additional Units**") or will install such Additional Units at an alternative site approved by the City and reasonably acceptable to FPL; provided, prior to the installation of the Additional Units the City shall demonstrate to FPL's reasonable satisfaction that the demand for, and use of, the Identified Projects warrants the installation of the Additional Units. The useful life of the renewable energy technology installed at the Identified Projects will be determined by FPL based on prudent utility practice and the original equipment manufacturers' representations and warranties regarding the useful life of the applicable installed technology; provided, the Parties acknowledge and agree that the useful life of the Original Stations will be ten (10) years.

For illustrative purposes only, a schedule related to the Phase 1 Energy Projects, the Upgrade Services, the installation of the Additional Units and the Makeover Services is attached at Exhibit A.

**2. Phase 2 Energy Projects:**

Phase 2 EC Projects and RE Projects will be longer term projects and subject to the receipt by FPL and the City of necessary Required Approvals and/or the passage of enabling legislation. Phase 2 projects would include:

- (a) The development of a roof-top solar facility (the “Solar Roof”). FPL would cause the installation of large-scale roof-top solar PV array at a site appropriate for such solar technology, such installation and site as mutually agreed to by the Parties.
- (b) The development and installation of a demonstration “LED” streetlight pilot program designed to facilitate the adoption by the City (and by the Citizens, as applicable) of energy efficient street and area lighting.
- (c) The development of a “utility scale” solar generation project. FPL would seek to develop a five (5) to ten (10) MW solar generation facility (the “SGF”) on a site owned by the City and appropriate for the development and operation of the contemplated SGF. The City and FPL would negotiate in good faith toward a long-term agreement for the purchase or lease by FPL of the site, including a purchase price or lease payment from FPL to the City reflecting the fair market value of the site. FPL would conduct due diligence on and consider the Verna Wellfield property as a possible site for the SGF. The Parties recognize and agree that any site related to the SGF must be suitable for the development of such a facility, have the necessary solar resource and that the arrangements must be otherwise competitive, from each Party's perspective, with alternative sites and solar projects that may be developed by either the City or FPL. Nothing herein shall preclude the City from developing a similar solar generation facility, including such a solar facility at the Verna Wellfield property, at the City's expense, to be owned by the City. Further, the City shall have the right to develop a solar generation facility independent of FPL if the City, in its sole discretion, determines that the independent development of such a solar facility is in the best interests of the City and the Citizens.
- (d) The development of a downtown transportation connector. FPL would support reasonably the City's efforts in applying for a federal grant to provide electric rail service (or other appropriate transportation circuit) in the downtown area.

For illustrative purposes only, a schedule related to the Phase 2 Energy Projects is attached at Exhibit B.

**C. Responsibilities.**

Pursuant to the terms of this Agreement, the Parties will jointly develop and implement the Energy Projects identified in Section B. In furtherance of this objective, FPL and the City, to the extent their interests are aligned, agree to support and not obstruct the advancement of statewide renewable energy legislation and conservation efforts and to cooperate in the advancement of the Phase I and Phase II Energy Projects.

**1. Phase 1 Energy Projects.**

Subject to the receipt by FPL (or, if applicable, the City) of any Required Approvals, FPL shall develop and implement the Phase 1 Energy Projects in accordance with (i) the standards of care, diligence, skill and judgment normally exercised by professional firms and individuals with respect to services of a similar nature; (ii) recognized and sound renewable energy practices, procedures and techniques; (iii) the terms of this Agreement; and (iv) all applicable laws and regulations (collectively "**FPL's Performance Standard**"). The City will (i) cooperate reasonably with FPL in the developing and implementing the Phase 1 Energy Projects; (ii) provide promptly to FPL any relevant data, information regarding Citizen interest in energy conservation, efficiency, renewable energy, and energy sustainability measures and projects, information regarding incentives that the City makes available to the Citizens (if applicable), access (including, if necessary, access to appropriate project sites), and City personnel (including labor) necessary to fulfill the City's responsibilities that are necessary for FPL to effectively carry out its Phase 1 responsibilities under this Agreement; (ii) collect and provide to FPL data produced by, and related to, the Energy Project (e.g., Citizen participation and energy usage data); and, (iii) promote FPL's participation in the program by allowing appropriate signage and acknowledgement (the "**City's Contribution**"). The Parties shall use commercially reasonable efforts to have the Phase 1 Energy Projects developed and implemented within eighteen (18) months of the Effective Date of this Agreement.

**2. Phase 2 Energy Projects.**

The Parties shall develop and implement the Phase 2 Energy Projects consistent with FPL's Performance Standard and the City's Contribution; however, the Parties acknowledge and agree that successful implementation of the Phase 2 Energy Projects will require, be contingent upon the receipt of, and be subject to: (i) certain Required Approvals; (ii) enabling legislation favorable to the development of renewable energy projects; and, (iii) increased capital and resource commitment from each Party. Further, with regards to the development of the SGF, FPL and the City shall jointly study the technical and financial requirements of the SGF Energy Project including, without limitation: (i) the scope and potential site locations of the SGF; (ii) design and construction costs, and operations and life cycle requirement costs; and (iii) the amount of renewable energy that will be produced and the proposed disposition of any renewable energy credits. In order to undertake these studies, the Parties shall have the following responsibilities:

A. FPL shall use commercially reasonable efforts to perform the following tasks, and other such reasonable tasks that may be required to develop and implement the SGF Project:

(i) Participate in joint technical exchanges with the City, on a schedule and at locations as may be mutually agreeable, for the purpose of developing and implementing the SGF Project.

(ii) Provide to the City a plan describing the proposed SGF Project site plan (e.g., land and/or facilities required, access requirements, power distribution system interconnection), the proposed approach for designing, constructing, operating, and maintaining the SGF Project throughout its lifecycle, the project schedule and estimated costs, the responsibilities of each of the Parties for meeting project schedule milestones and for funding the costs of the project, an estimate of the amount of renewable energy that will be produced, and the proposed disposition of any renewable energy credits (the “**Project Plan**”).

B. The City will use commercially reasonable efforts to perform the following tasks, and other such tasks as may be necessary to develop and implement the SGF Project:

(i) Participate in joint technical exchanges with FPL, on a schedule and at locations as may be mutually agreeable, for the purpose of developing and implementing the SGF Project.

(ii) Review and comment on each submitted Project Plan and, subject to the City’s acceptance of a final Project Plan, perform required site assignment coordination, environmental determinations, and preparation of appropriate implementing agreements governing land and facility use, SGF Project operation and maintenance.

(iii) Provide available, relevant data to assist FPL in carrying out its responsibilities with respect to the SGF Project.

C. Once it is determined that a SGF Project is viable from a regulatory, legislative, technical and financial perspective, the structure, final configuration, and binding terms and conditions applicable to the SGF Project shall be reflected in a mutually acceptable, definitive agreement (the “**Definitive Agreement**”) among the City and FPL. A Definitive Agreement would contain terms and conditions customary for a transaction of this type, including covenants, representations and warranties, and other mutually agreeable terms.

**D. Work Product; Financial Arrangements; Responsibilities; Cooperation**

1. FPL shall own and maintain the Energy Projects funded and provided by FPL pursuant to this Agreement (and, except as specifically provided for herein, the products generated thereby) and own all rights (including all intellectual property rights), title and interest to any and all work products resulting from the renewable energy and energy efficiency services or Energy Project development and implementation activities performed by FPL pursuant to this Agreement; provided, that FPL hereby grants the City a non-exclusive, royalty-free license to use such work products in connection with the applicable Energy Project, which license shall survive beyond the termination of this Agreement.

2. The City and FPL will each be solely responsible for and bear all of their own respective internal and external costs, including without limitation, expenses of legal counsel, consultants, accountants and other advisors, incurred at any time in connection with pursuing the Energy Projects set forth in this Agreement.

3. The City and FPL shall each be responsible for its own facilities, for protection of its own systems, and for ensuring adequate safeguards for FPL customers, the Citizens, and the personnel and equipment of the City and FPL.

4. To further its commitment to expanding the use of renewable energy resources, in creating energy efficiencies, and in promoting and implementing measures and practices that will improve energy sustainability, the City commits to cooperate with and support (and not oppose or disparage) FPL or FPL's efforts to have enacted legislation and related regulatory procedures enabling the development, ownership and operation of renewable energy projects in the state of Florida.

**F. Default; Remedies**

1. An "**Event of Default**" shall mean the failure by a Party (the "**Defaulting Party**") to perform any material covenant or obligation set forth in this Agreement, which failure has a material adverse effect on the other Party's (the "**Non-Defaulting Party**") ability to perform its obligations under this Agreement, if such failure is not remedied within thirty (30) days after notice of such failure, which notice sets forth in reasonable detail the nature of the failure; provided, however, that if such failure is not reasonably capable of being remedied within the thirty (30) day cure period specified above, the Defaulting Party shall have such additional time (not exceeding an additional ninety (90) days) as is reasonably necessary to remedy such failure (the "**Cure Period**"), so long as the Defaulting Party advises the Non-Defaulting Party of its plan for such cure and promptly commences and diligently pursues such remedy.

2. If an Event of Default has occurred and is continuing (and after the expiration of the Cure Period) the Non-Defaulting Party may, at its option: (i) terminate this Agreement without penalty or further obligation by written notice to the Defaulting Party; and (ii) exercise any other right or remedy available to the Non-Defaulting Party under generally applicable law, under this Agreement or in equity. Further, the Parties acknowledge and agree that money damages may not be a sufficient remedy for any breach of this Agreement and that the Non-Defaulting Party shall be entitled to seek injunctive or other equitable relief, including specific performance, to remedy or prevent any breach or threatened breach of this Agreement. Such remedy shall not be the exclusive remedy for any breach of this Agreement, but shall be in addition to all other rights and remedies available at law or in equity. Notwithstanding anything contained in this Agreement, a Defaulting Party's liability to the Non-Defaulting Party in connection with this Agreement and any activities undertaken in connection with the Energy Projects shall be limited to direct damages and shall exclude any other liability, including without limitation liability for special, indirect, punitive or consequential damages in contract, tort, warranty, strict liability or otherwise.

## **G. Notice**

All notices required under this Agreement shall be in writing unless expressly specified otherwise herein, and shall be delivered in person, by certified mail or by a nationally recognized overnight courier, return receipt requested, or by facsimile transmission with confirmation by voice or automatic answer-back service, as specified below:

## SARASOTA:

FPL

Robert J. Bartolotta  
City Manager  
The City of Sarasota, Florida  
1565 1<sup>st</sup> Street  
Sarasota, FL 34236  
(941) 954-4102 (voice)  
(941) 954-4129 (fax)  
E-mail: Robert.Bartolotta@sarasotagov.com

Vice President, External Affairs  
Florida Power & Light Company  
700 Universe Boulevard  
  
Juno Beach, FL 33408  
(561) 691-7114 (voice)  
(561) 691-7786 (fax)  
E-mail: Pamela.M.Rauch@fpl.com

**With Copies to:**

**With Copies to:**

Fournier and Connolly, P.A.  
City Attorney  
The City of Sarasota, Florida  
1 South School Ave., Suite 700  
Sarasota, FL 34237

Florida Power & Light Company  
Law Department (Law/JB)  
700 Universe Boulevard  
Juno Beach, Florida 33408  
Facsimile: (561) 691-7305  
Attention: Managing Attorney

## H. Miscellaneous

1. **Term.** The term of this Agreement shall be thirty (30) years from the Effective Date, subject to the termination rights set forth herein (the “**Term**”).

2. **Modifications.** Any modification to this Agreement shall be executed in writing and signed by an authorized representative of each Party. Any modification that creates an additional commitment of City resources must be signed by the original City signatory authority or successor or a higher-level City official possessing original or delegated authority to make such a commitment.

3. News Releases and Publications. Any public notices to third parties and all other publicity concerning this Agreement, activities relating to this Agreement and to the Energy Projects, shall be jointly planned and coordinated by the Parties and neither Party shall act unilaterally in this regard without the prior approval of the other Party (such approval not to be unreasonably withheld), except where required to do so by law

or by the applicable regulations or policies of any governmental or other regulatory agency of competent jurisdiction or any stock exchange in circumstances where prior consultation with the other Party is not practicable.

4. Use of the City's or FPL's Name, Initials and Devices. FPL agrees to submit to the City for its written approval all promotional and advertising material that uses the City's names, initials, insignia, seal, or logotype prior to publication. The City agrees to submit to FPL for its written approval all promotional and advertising material that uses the FPL names, initials, insignia, seal, or logotype prior to publication. The Parties agree to work cooperatively with regard to news releases, publicity, signage, and other public announcements and materials to ensure that both FPL and the City receive fair and appropriate credit for their contributions to the mutual energy conservation, renewable energy, and energy sustainability measures contemplated by this Agreement.

5. Assignment. Neither Party may: (i) assign any of its rights or obligations under this Agreement, or (ii) sell, lease, assign, transfer or otherwise dispose of all or a portion of an Energy Project without the prior written consent of the other Party, which shall not be unreasonably withheld or delayed. Any attempt by a Party to make any assignment, sale, lease, transfer or other disposition described herein in violation of this provision shall be void ab initio and shall not be effective.

6. Disputes. In the event of any dispute, controversy or claim between the Parties arising out of or relating to this Agreement (collectively, a "Dispute"), the Parties shall attempt in the first instance to resolve such Dispute through friendly consultations between the Parties. If such consultations do not result in a resolution of the Dispute within fifteen (15) days after notice of the Dispute has been delivered to either Party, then such Dispute shall be referred to the senior management of the Parties for resolution. If the Dispute has not been resolved within ten (10) business days after such referral to the senior management of the Parties, then either Party may pursue all of its remedies available hereunder. The Parties agree to attempt to resolve all Disputes promptly, equitably and in a good faith manner.

7. Governing Law; Waiver. This Agreement shall be governed by, and construed in accordance with the laws of the State of Florida without regard to its conflict of laws provisions. All actions or proceedings relating to this Agreement (whether to enforce a right or obligation or obtain a remedy or otherwise) will be brought solely in the state or federal courts located in the State of Florida. Each Party hereby unconditionally and irrevocably consents to the jurisdiction of those courts and waives its rights to bring any action or proceeding against the other Party except in those courts. EACH OF THE PARTIES HERETO HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES THE RIGHT EITHER OF THEM MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED HEREON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE PARTIES ENTERING INTO THIS AGREEMENT.

8. Structure. This Agreement is not intended to constitute, create, give effect to or otherwise recognize a joint venture, partnership or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein. No Party shall have the right, except as expressly provided for in this Agreement, to bind the other Party with respect to any matter without the express prior written consent of the other Party.

9. Construction of Agreement. The Parties expressly agree that no provision of this Agreement should be construed against or interpreted to the disadvantage of any Party by any court or other governmental or judicial authority by reason of such Party having been deemed to have structured or dictated such provision.

10. Complete Agreement. This Agreement is intended as the complete and exclusive statement of the agreement between the Parties. Parol or extrinsic evidence shall not be used to vary or contradict the express terms of this Agreement and recourse may not be had to alleged prior drafts, negotiations, prior dealings, usage of trade, course of dealing or course of performance to explain or supplement the express terms of this Agreement.

11. Counterparts. This Agreement may be executed and delivered in counterparts, and may be delivered by facsimile transmission.

12. Severability. In the event that any provision of this Agreement shall be held invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement or the application of the provisions hereof to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby.

13. Non-Waiver. No waiver of any provision of this AGREEMENT shall be deemed to be nor shall constitute a waiver of any other provision whether or not similar, nor shall any waiver constitute a continuing waiver. No waiver shall be binding unless executed in writing by the Party making the waiver.

IN WITNESS WHEREOF, the Parties hereto have caused this Renewable Energy, Energy Efficiency, and Energy Sustainability Agreement to be executed and delivered by their duly authorized officers as of the date first written above.

THE CITY OF SARASOTA, FLORIDA

BY: 

Kelly M. Kirschner

Mayor

FLORIDA POWER & LIGHT COMPANY, a Florida corporation

BY:

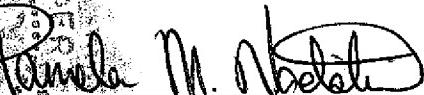


Pamela M. Rauch

Vice President, Corporate and External Affairs

ATTEST:

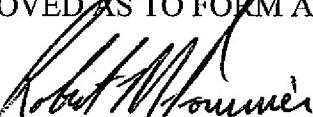
BY:



Pamela M. Nobletti

City Auditor and Clerk

BY:



Robert M. Hammer

City Attorney

APPROVED AS TO FORM AND CORRECTNESS:

**City of Sarasota**  
**Renewable Energy, Energy Efficiency, and Energy Sustainability Agreement**  
**Phase 1 Energy Projects - Exhibit A**

Energy Project	What	Where	Frequency
Education	B1a Captain Conservation Professor Why's	Performances as agreed upon	As agreed upon
Energy Audits	B1b Energy Audits performed by FPL to identify cost-effective energy savings	All city facilities	every 5 years through 2040
Energy Audits	B1b Energy Audits performed by FPL to identify cost-effective energy savings, with customers acceptance and agreement	Identify 100 largest electricity-consuming accounts (non-city)	1st cycle within 5 years
Energy Audits	B1b Energy Audits performed by FPL to identify cost-effective energy savings, with customers acceptance and agreement	Identify 50 largest electricity-consuming accounts (non-city)	subsequent 5 yr cycles years 2015 - 2040
Home Energy Surveys	B1b FPL and City to encourage Citizens to participate on-line, phone, in person		on-going
Education	B1c LEED Classes for City Employee		sponsorship up to \$2000
Education Testing Facility	Demonstration of new renewable energy products and technologies to include:	site(s) selected by City, reasonable accepted by FPL	2011 - Initial installation of 5 2021 - review technology and use for possible additional installation of 10 2031 - replace initial 5 placed in 2011 and review for additional install of 5 2031 - review and replace/supplement additional installation subject to useful life determination
	B1d - Five (5) Petra Solar pole-mounted panels with Smart Grid capability (useful life - 20 years)	site(s) selected by City, reasonable accepted by FPL	
	B1e - Install a DC solar PV array (5kW(max)) at a School Site (useful life - 20 years)	school(s) selected by City and Sarasota County School Board reasonable accepted by FPL	2011 - Initial installation of (5kW max) array 2021 - review for use and possible additional installation of 2-(5 kW max) sites 2031 - replace initial installation of array
	B1f - Five (5) Electric Vehicle ("EV") Charging Stations (useful life - 10 years)	site(s) selected by City, reasonable accepted by FPL	2011 - Initial installation of 5 stations 2016 - review technology and use for possible additional 10 stations 2021 - replace initial installation of 5 stations and determine useful life for subsequent replacement/supplement 2026 - replace additional 10 stations placed in 2016 and determine useful life for subsequent replacement/supplement 2031 - review and replace/supplement stations subject to useful life determination 2036 - review and replace/supplement stations subject to useful life determination
	B1g Home Energy MakeOver Initiative (HEMI) - 1500 homes to include as needed: compact fluorescent light bulbs, installation of On-Call equipment, weatherstripping, duct and insulation repairs	homes selected by City	2011 - 100 homes 2022 - 100 homes 2013 - 150 homes 2025 - 100 homes 2015 - 100 homes 2028 - 150 homes 2018 - 100 homes 2031 - 150 homes schedule flexible and subject to change
	B1h Non-Profit Energy MakeOver (NEMO) - 15 sites to include as needed: compact fluorescent light bulbs, installation of On-Call equipment, weatherstripping, duct and insulation repairs	sites selected by City	schedule to be determined

**City of Sarasota**  
**Renewable Energy, Energy Efficiency, and Energy Sustainability Agreement**  
**Phase 2 Energy Projects - Exhibit B**

All Projects on this list will be longer term projects and / or subject to required approvals and passage of enabling State legislation.			
<b>Energy Project</b>	<b>What</b>	<b>Where</b>	<b>Comments</b>
Solar Roof	B2a Large scale roof top DC solar PV array	As agreed upon	As agreed upon
LED Streetlights	B2b demonstration "LED" streetlight pilot program, energy efficient street and area lighting	As agreed upon	As agreed upon
"Utility Scale" Solar Generation Project	B2c Five (5) to ten (10) MW DC solar generation facility	As agreed upon	Consider Verna Wellfield property
Downtown Transportation Connector	B2d FPL would support the City's efforts in applying for a federal grant		